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Volume CLXXII No. 2252 The SPHERE, London, March 20, 1943

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly

HOW THE TOWN OF MEDENINE, IN SOUTHERN TUNISIA, WAS FOUND AFTER ITS ABANDONMENT TO THE EIGHTH ARMY. Looking through a Moorish archway at the wrecked buildings, wantonly destroyed by the Germans before their withdrawal

The town of Medenine, near the Mediterranean coast, is only seven miles from the Mareth Line defences : it lies on the direct route between Tripoli and Tunis. In view of the strength of the Eighth Army, fresh from their triumphs in Tripolitania, it was abandoned by the Afrika Korps on February 20. The picture above was taken just before the actual entry of the Allied troops. The town was found to be completely deserted : before leaving, the Germans had looted the place thoroughly, and nothing but piles of rubbish and empty wine-vats were found by the occupying Eighth Army. In this respect, the Germans in North Africa paralleled their comrades on the Russian front, where every town occupied by the advancing Red soldiers is found to have been systematically despoiled and wrecked by the retreating Nazi soldiery.

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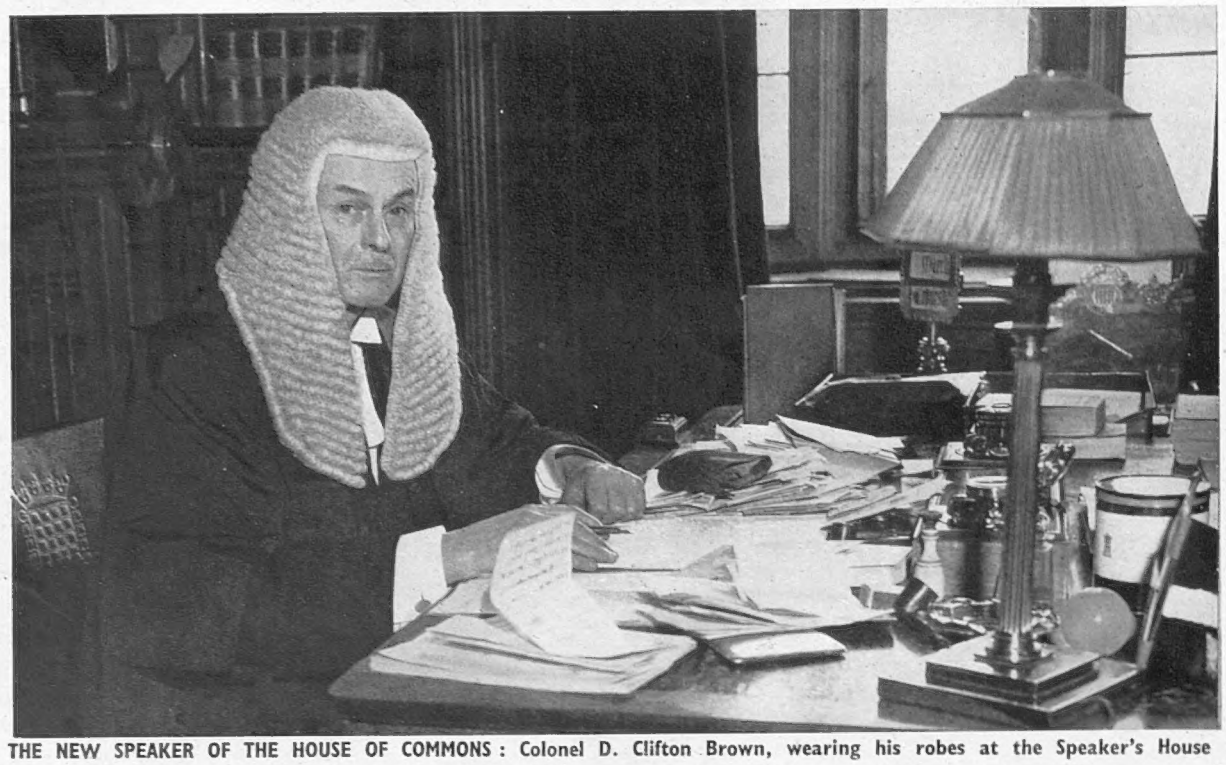
A WAR NEWSLETTER—No. 185



THE NEW SPEAKER OF THE HOUSE OF COMMONS: Colonel D. Clifton Brown, wearing his robes at the Speaker's House

Colonel Brown is sixty-three years of age: he was elected Member for Hexham in December 1918, and (with a short break in 1923-24) has represented that constituency ever since. In 1938, he became Deputy Speaker of the House: although his election was not a foregone conclusion, it was considered by many that he would succeed after the death of Captain FitzRoy

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Impatience of Publicists.

—No doubt, the first week of March 1943 was historically a very significant one in this war—and especially for the Allied air forces. It was a culmination of a phase of intensified bombing of German war industries on a non-stop basis by day and night which included "record" raids. It included the 100 per cent. victory over the great Japanese convoy in the Bismarck Sea by Allied air power, without help from naval vessels and at trivial cost. It revealed unmistakably that Stalin, when checked on one sector, has still the means and the determination to continue his declared aim—to drive the Nazis out of Russia—by swift advances and encircling movements on other sectors of his 2,000-mile front. It revealed the First and Eighth Armies in Tunisia as capable of holding Rommel's desperate defensive attacks and even turning them into counter-advances, and it gave hope that the period of preparation for liquidating the Tunisia hold-up might soon end in action. It seemed, therefore, an odd moment for pundits, usually patient and restrained, to show a new impatience and irritation at "delay" in their Sunday "leaders." Myself, I am not without clues to this sense of impatience. The mind of Stalin is a closed book to us. The reading of it is of first importance to the Allies. He hints that Russian resources are *not* inexhaustible, that the Nazi panzer and air power are yet by no means exhausted, that nothing can break that power but an Allied ring of co-operation on the soil of Europe, and *before summer*. It is natural that he should regard this very month as "psychological," even for taking risks and gambles. For he has held the weight of the burden of Nazi land power over-long, and will never comprehend the difficulties in the way of a maritime Power at grips with the deadly menace of U-boat warfare. Impatient "leaders" are, therefore, to be expected. What good they may achieve is another matter.

A Prophecy.

—I am only a part-time prophet in war journalism. And even that is an exaggeration. I have seen too many prophets go down since 1939. But I venture a small prophecy which I hope at least I may one day in the future re-read—to find that it has come true. If my prophecy come true, it will mean two important things—that the Allied cause has continued unchecked in vital degree the present phase of crushing the power of Nazi-ism and that the British public has proved itself true to type. My prophecy is this: that a day may come when we shall sicken of glorifying the punishment we are inflicting on the foul enemies and murderers of civilisation, and grow tired of vengeance, as big-hearted folk have always done. It 's a long way ahead, no doubt, and a rash prophecy. There are watchdogs ever awake and vocal to warn us that, if we do, we shall set the fool's cap on our own heads and betray posterity. Yet I venture to prophesy that one day we shall say even to the Germans: "Go, and sin no more"—with effective safeguards to ensure that they do *not*—and that one day sane men may judge that Hitler hanged was, or might have been, a more dangerous and permanent inspiration to another German war of revenge than a Hitler eating out his heart in contemplation of his crimes and blunders in the universal contempt of humanity. There are signs already that anything like gloating over the effect of our bombs—"a million workers rendered homeless"—is distasteful to weak stomachs and even to men and women whose memories are seared with the experience of their own sufferings and loss at the hands of this foul enemy. It is not impossible that that distaste—to the horror of the watchdogs—will grow, as victory draws nearer and more certain. Right or wrong, the tendency is in line with our national character and, strangely enough, is approved by the Christian religion, which we flourish as the banner of our cause. There is something said about "seventy times seven"—one of the golden numbers which at this stage of the war the bishops must conveniently forget as statesmen, if they take private note of it as churchmen. Anyway, we are all agreed that for months and months (and *always*, until safeguards are assured) the tendency must be checked, and our stomachs must be strengthened to digest the destruction statistics. We must continue to "think that our babes were fairer than they were, and he who slew them fouler than he is" (if possible); and we must steel ourselves to read that second part of *Monte Cristo*, with its long-drawn-out, meticulous and horribly detailed catalogue of vengeance and punishment, with all the pleasure we derive from the high adventure and bitter suffering of Part 1. No time for sentiment (to put it at its lowest), when the next blow may be straight at our own heart, well aimed in the dark. But the British are a queer race, and their statesmen do not invariably understand them.

"To Avert the Third World War."

—Public men in the democracies devote an immense amount of time to public pronouncements. What they say is sometimes mischievous, often trite and occasionally sound and apt. Striking an average, we come to the conclusion that they talk too much and rely too much on words and phrases at a time when only action counts. Mr. Henry Wallace, when he addressed at Delaware a conference on Christian bases of world order, spoke aptly and to the point. He was frank without being mischievous, and his arguments were by no means commonplace. He sees, as few yet see, that if the winning of the war and the peace are to be regarded as one grand, continuous achievement and indivisible, our states of mind in the approach to these two problems must be totally different. To win the war, we must be optimists. We must believe and declare that the Allies are in full understanding, and that nationally and internationally the Allies practise a grand measure of fellowship, unity and selfless devotion to a common cause. To plan for the peace, we must be more realistic than idealistic or optimistic. We must realise, in our hearts at least, that these ideals are not everywhere in full bloom. The problems of how to deal with the German race, of how to approach to a far more realistic comprehension of Russia and her war and peace aims, of how to secure the continuance after victory of such advances as we have all made to the Christian ethic through trial and suffering, are all problems affecting the very foundations: problems precedent to the laying of a single brick. Until these snags are realised, until some prospect of removing them is found, we waste time in building, for we build on sand. Democratic statesmen in office are right to trounce anyone who dares to question our perfect understanding with Russia, our unity at home and among our Allies, our clear-cut policy concerning post-war treatment of 80,000,000 German war-criminals, and the re-drawing of a dozen national frontiers so as to ensure everlasting peace, and the reorganisation of national and international trade so as to ensure employment for all and freedom for all from want and grievance. The outlawry of war is still a gigantic note of interrogation. It bristles with a hundred major difficulties, obstacles and fearful doubts. I often stress that the problems of winning the war and the peace should not be regarded as one and indivisible—for the vital reasons I have given. But if it must be so, then our democratic leaders must be double-minded, and must somehow manage to switch over from optimism to realism as they switch from one task to another.

They are Tough.

—It so happened that during Army Week our village had a chance to get to know something of the character and training of our modern Army. A unit, on a normal spring exercise of a local character, bivouacked in our midst. We soon saw that they had little to learn of the art of swiftly preparing their bivouacs for defence, little to learn of the art of camouflage, little to learn of the manifold arts of economical and effective attack. And nothing at all to learn of the soldier's art of "living on the country." (We thought we were pretty good scroungers towards the end of our little war, 1914-18. We were wrong.) Our Saxon bridges and monuments near the roads bear testimony to the fact that the art of driving at night without lights is one of the most difficult and the last to be learned in modern technique. We 've learned a lot about the meaning of total war. We are in no doubt that our Army is *tough*. They did not get a chance to have their clothes off or to bathe officially during a fortnight. But they achieved their purpose by going down to bathe in the river in the early frost of a March morning, and swam and splashed contentedly. They built themselves enchanting brush shelters, as firm and tight as the best examples of troglodyte art. At the end of the longest and coldest day they were ready for baseball, stripped to the buff. Tough? You 've said a mouthful. We 've learned a lot from them, and so will the *haus-fraus* of the Rhineland. One other charming characteristic of our modern Army of invasion: when they wear their leather jerkins there is no means of distinguishing the private from the colonel. By the voice? No, sir. The private may well speak in the accents of an Oxford common-room and . . . Individually, they are one and all quite charming.

Laurence Binyon.

—Oxford and Trinity have lost a very notable alumnus in Laurence Binyon, a delightful, erudite and cultivated man, a very good man, and a great poet, to my way of thinking. I am not so sure that the arts, or some of them, atrophy without constant re-interpretation to meet the moods of the new generations. Binyon was old enough in the first World War to escape the disillusionment of the wave of post-war and first-war poetry, and as a result his war poetry stands out and beacons its comfortable noble light to the generation which has walked in darkness for thirty years. He was unable to view the tragedies of his time with the traditional restraints and discipline of a Victorian upbringing, not seeking to probe too closely into the mystery of human life, and human suffering with its apparently meaningless injustice and cruelty; not rending the veil of that temple of faith which, if somewhat vague and constantly liable to be shaken, yet kept so many of the generations gone by from despair and disillusionment. He brought a Victorian mind to the comfort of a war-stricken generation and some of the poetry it produced has become as much a part of the treasury of English poetry as Shakespeare's, Gray's or Keats's—for human comfort and for human uplift. To have achieved even a little towards those rare poetic ends is to have won eternal fame as a poet.

THE OLD STAGER

THE FIGHTING IN TUNISIA

THE APPROACH TO THE KASSERINE PASS: Bren-gun carriers passing down one of the many wadis during the advance by the Grenadiers

A FIRST ARMY PATROL CAPTURES GERMAN PARATROOPS. A War Office photographer accompanied men of a Recce Regiment on a patrol which ended in the mopping-up of a nest of Germans in the "Tally-Ho Corner" sector near Sedjenane. German infantry were known to have set themselves up in a farmhouse. After a short action the enemy were routed and some prisoners were taken. This picture shows the capture of a German paratroop, who was found hiding in a trench. Only one man out of these four Recce troops thought it worth while to wear a steel helmet!

THE GRENADIERS AT KASSERINE, supported by Bren-gun carriers, covering the mountain slopes during the reconnaissance: When Axis forces thrust to the outskirts of Thala and came in contact with U.S. troops reinforced by an armoured Brigade, the Hampshire Regiment and Coldstream and Grenadier Guards, they were driven back after two days of heavy fighting in the direction of the Kasserine Pass. Enemy armour of the 21st Panzer Division suffered heavy tank losses and failed to make the expected stand at the mouth of the Pass. Two companies of Grenadiers took Bren-gun carriers over 10 miles to the Pass, reaching their objective in 5¾ hours—only to find the enemy still retreating. This important position is now in Allied hands, and not a single enemy unit is left in the Plain before the Pass

GERMAN PRISONERS FROM THE MEDJEZ-EL BAB AND GONBELLAT SECTORS, where the Germans launched an attack supported by tanks and artillery. They were repulsed with heavy losses, and the prisoners amounted to over 400

AT THE SOUTHERN END OF THE MARETH LINE: Foum Tatahouine, a little town some miles from the sea-coast, after it had been occupied by men of the Eighth Army

BRITISH TROOPS IN THE TOWN OF FOUM TATAHOUINE. This little spot has a strategic importance in view of its proximity to the Mareth Line. It is now firmly in the hands of General Montgomery's men. Above, Madame Mellet, wife of the French Commandant at Tatahouine, is seen with some of the British troops.

On the NIGHT of MARCH 5th

The Devastation Wrought at Essen where the "Heaviest Blow at German War Industry" was Struck by the R.A.F.

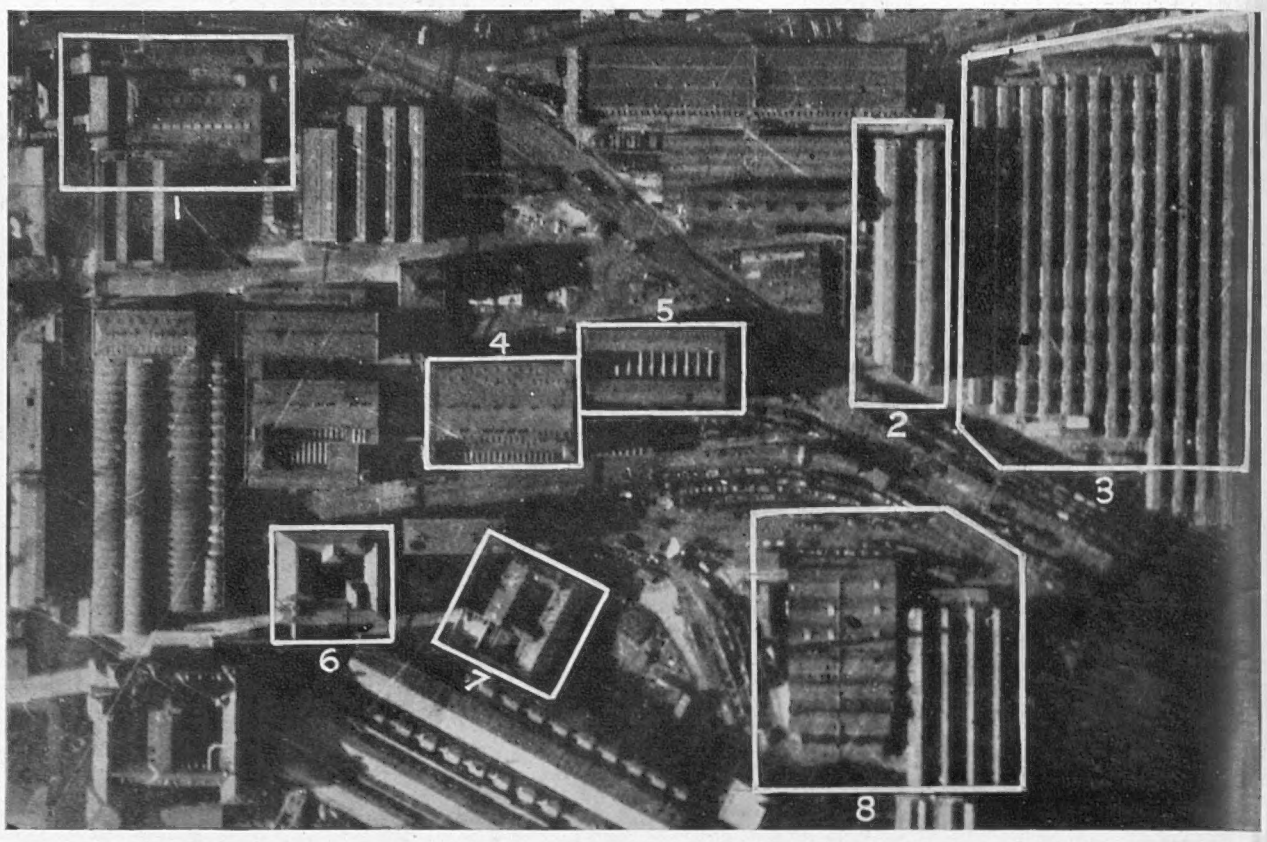
—Official Air Ministry Photographs

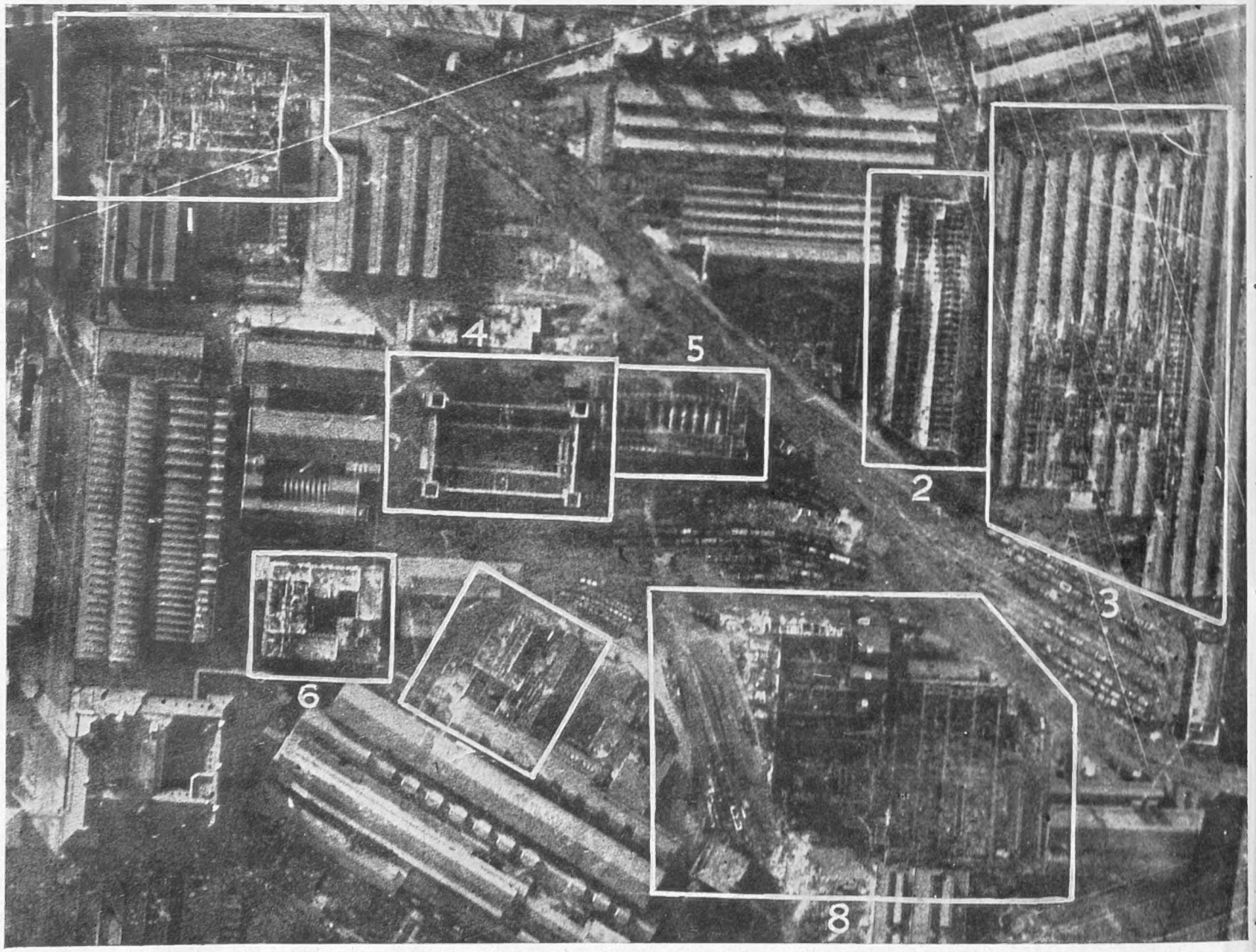
During the course of his Air Review in the House of Commons on March 11, Sir Archibald Sinclair had this to say of Essen: "We have now obtained photographs of the attack on the night of March 5-6, and this proves to have been probably the heaviest blow struck at German war industry in the whole of the bomber offensive. In the Krupps works, thirteen main buildings have been destroyed or severely damaged, and damage can be seen in at least forty other factory buildings, sheds and workshops. The majority of these are in the steel works, and include heavy damage to such key sections as the furnaces, foundry and forges. In all, the severe damage to workshops and administrative buildings covers 136,000 square yards.

"There was a direct hit on the Essen power station, while damage to the gasworks extends over an area of 3½ acres. Immediately to the east of Krupps works there is a total destruction of a built-up area of 160 acres, and it is estimated that there is a total of 450 acres where at least 75 per cent. of the buildings have been demolished or gutted.

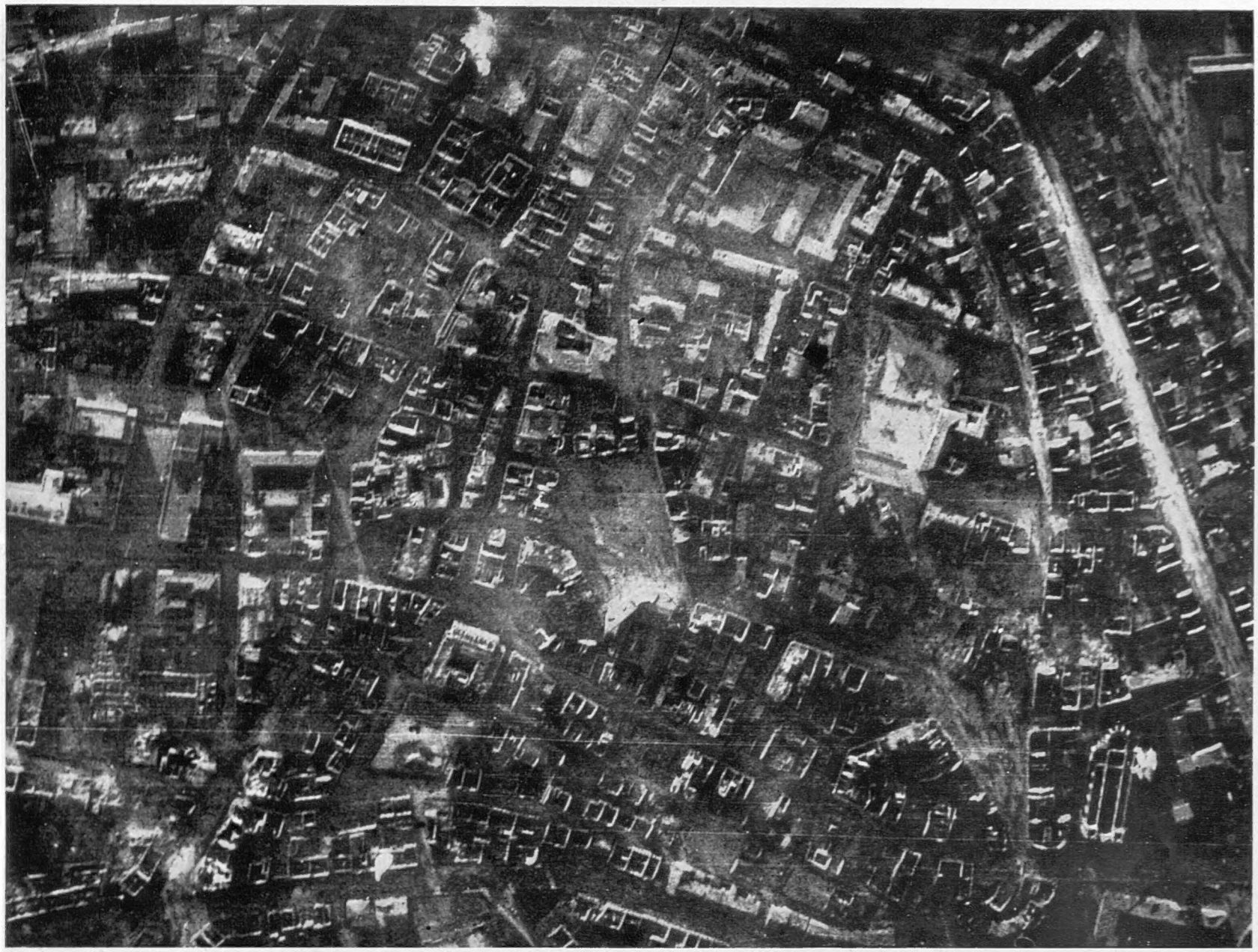
"Two days after the attack, fires were still burning; some 30,000 people in Essen, most of whom were employed in the Krupps works, have lost their houses, and many thousands in addition have been rendered temporarily homeless. The devastation shown in the photographs is comparable only with that achieved in the one-thousand-bomber raid on Cologne."

To supplement the Air Minister's statement to the Commons, it is now known that nearly 1,000 tons of high explosive and incendiary bombs were dropped in this one raid on Essen. It was one of the most concentrated raids ever made by Bomber Command. The whole weight of the attack apparently fell on the centre of the town—and this has been almost completely devastated. It is here that there is the largest single area of destruction, measuring 160 acres. Another area of 32 acres lies immediately south-east of the town centre.





***Above*—A PICTURE WHICH SHOWS A SECTION OF THE KRUPPS WORKS AT ESSEN before the devastating R.A.F. attack on March 5-6. This same area is shown in the picture *below*, after the attack, when fifty-three separate shops and fifteen main buildings were destroyed. 1—indicates the assembly shop; 2, 3, 4 and 5—machine shops; 6—administrative offices; 7—Elektrizitats works (foundry); and 8—furnaces. Rarely has the Air Ministry released a picture showing such complete devastation!**

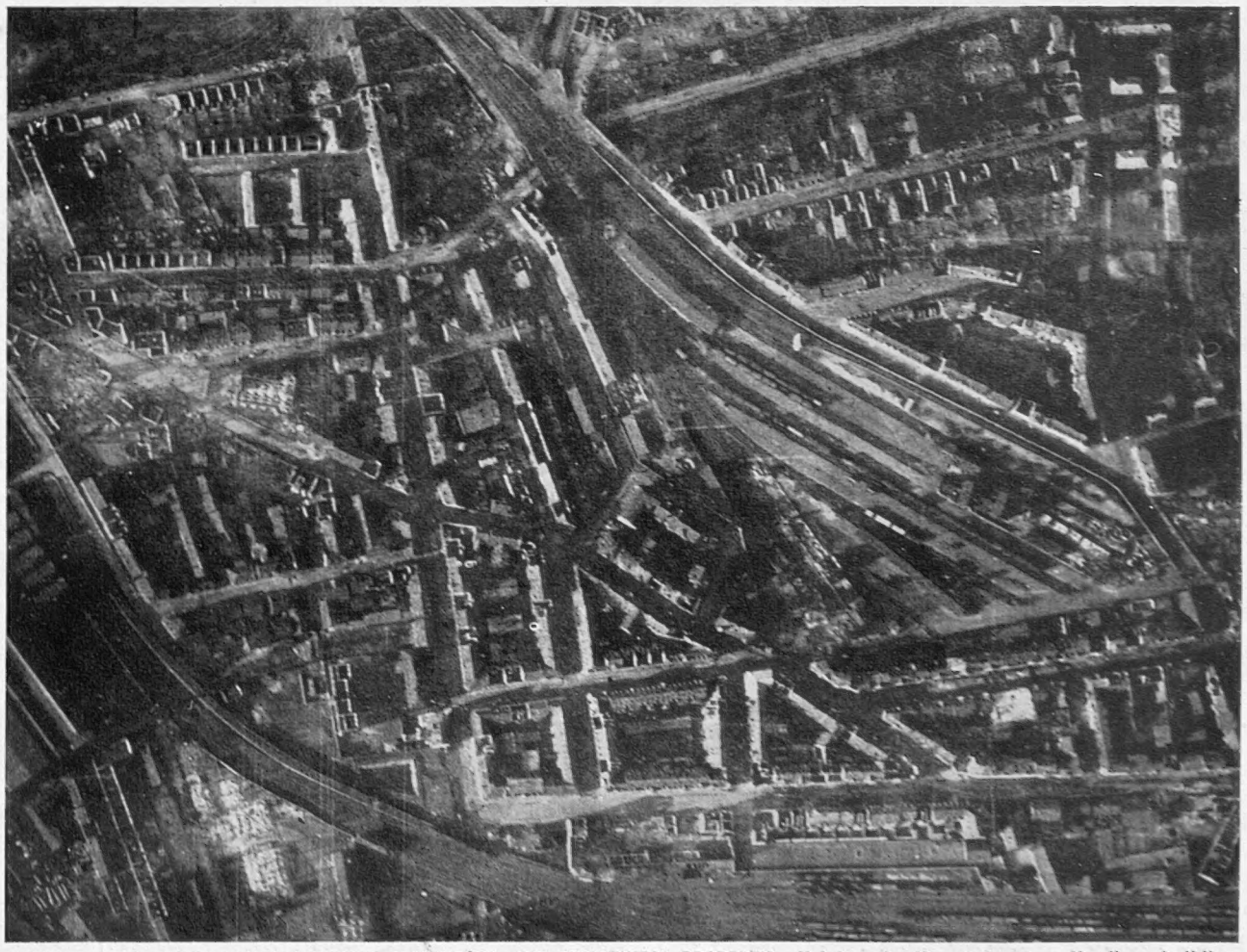


A WIDE AREA OF ROOFLESS WORKMEN'S HOUSES AND COMMERCIAL BUILDINGS in the immediate neighbourhood of Krupps armament works. This covers an area of about 140 acres. One in every nine of the total population of Essen is employed by Krupps; now alternative accommodation will have to be provided for the homeless workers if the great armament works is to function again !

One in every nine of the whole population of 670,000 is employed by Krupps. Essen is probably the most difficult of all bombing targets—a huge industrial area in a low-lying river valley, it is almost always covered in haze and smoke: there are few landmarks, for the whole neighbourhood is a maze of railways, canals and industrial buildings, which look very similar from the air. Moreover, it is in the very centre of the largest gun-defended area in all Europe. This means that, not only while over the target, but also while approaching and searching for it, our bombers are continuously exposed to a concentrated barrage. In spite of all these difficulties, Essen is now the second most blitzed town in Germany: only in Cologne is there a greater area of devastation.

Repairs to the Krupps works, and the reorganisation which the whole city of Essen will now require, should be much delayed by the severe damage done to the town Power Station and the town Gas Works. The damage here extends to over 3½ acres. Reorganisation and repairs also depend on communications, and these also suffered heavily in the raid.

During the last war, Krupps was exclusively an armaments works, but after Germany's defeat large departments of the works were adapted to the manufacture of locomotives, lorries, Diesel engines for ships, as well as road vehicles, railway trucks and wagons, and much else. Such products are, of course, as indispensable to the German war effort as arms, and are being made in great quantities in Essen, and Krupps still remains the principal source of German heavy naval, coastal and railway guns. It is also still the largest individual armament and industrial plant in Germany.

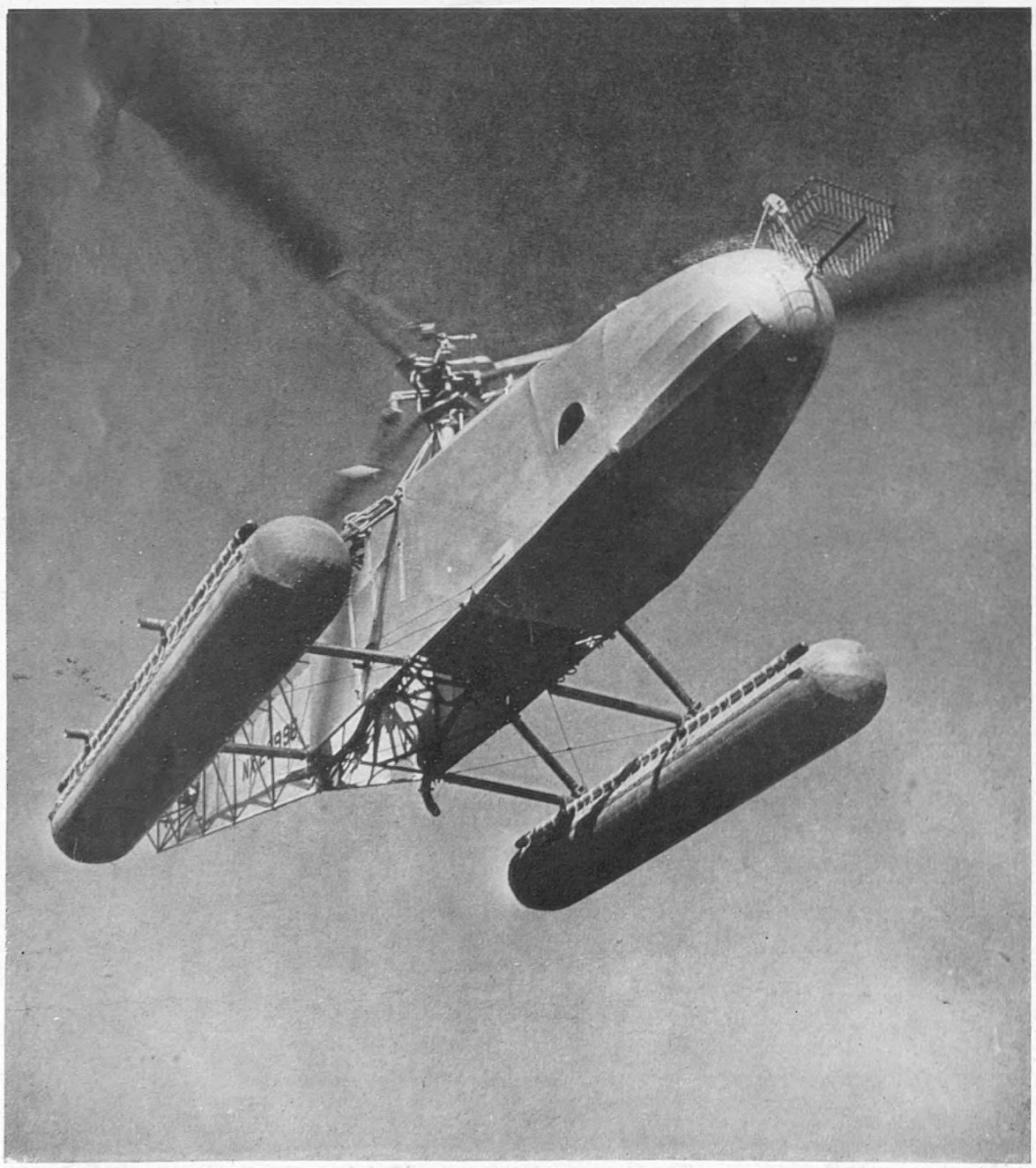


ANOTHER AREA OF DEVASTATION AMONG COMMERCIAL AND RESIDENTIAL PROPERTY adjoining the Krupps works. Hardly a building within this area has not sustained serious damage from high explosive, blast or incendiary bombs. In all, 450 acres of the great industrial city were devastated in the one night of March 5-6

THE VOUGHT-SIKORSKY HELICOPTER demonstrating how it can land or take-off from the water without making even a splash. With floats fitted to this strange aircraft, it is immediately converted into a seaplane. Its value in mid-Atlantic would make it of great value in combatting the activities of the U-boats

HELICOPTERS versus U-BOATS?

Above—Igor Sikorsky brings his helicopter almost down to the ground: there it hovers and picks up a piece of luggage. *Below*—With the luggage aboard, Sikorsky backs his machine away and continues his flight, without having touched the ground



COMING DOWN TO PARK, the helicopter can hover like a humming-bird over the exact spot chosen by the pilot. As the lift lever is released, the plane slowly begins to sink to earth. In this manner it would hover right over a U-boat before dropping its depth-charge and would prove a formidable new weapon in the vital Battle of the Atlantic

FROM A MOTOR-CAR PARKING-SPACE, where it was wedged in between two cars, Mr. Sikorsky takes his helicopter straight up into the air: the space needed by this unique machine for parking is only 10 ft. As there is no take-off or landing run, it is not necessary to fit the helicopter with wheels, except for moving it from point to point on the ground

Experiments now being made in America, to use helicopters against submarines, indicate one of the most remarkable developments in the campaign to beat the U-boats. Aircraft are the most powerful and efficient of the submarine's many enemies; but the great problem in the Battle of the Atlantic up to date has been the gap of some 600 miles in the middle of the Ocean, which is beyond the effective range of land-based aircraft. Here the U-boat can operate without fear of interference from the air.

It has now been decided to use helicopters to bridge this gap, because they can take off and land vertically, without forward run, from the deck of a ship. They can also carry depth-charges and, being able to "hover," can aim these with remarkable accuracy. Captain Balfour, in the House of Commons a few days ago, disclosed that we are acquiring a number of such machines "for marine protection."

IGOR SIKORSKY, who began experiments with helicopters in 1908 in Russia. The fifty-three-year-old inventor is best known for his four-motored long-range flying-boats

The helicopter shown in these pictures is the one recently tested by the United States Air Corps: it is the invention of the great Russian-American designer, Igor Sikorsky, whose knowledge of warplanes goes back to the early days of the 1914-18 war in Russia. The tests have proved so satisfactory that the machine is to be put into full production. Sikorsky's helicopter has a length of 38 ft. and a height of 12 ft.: it weighs just over one ton, and has accommodation for pilot and passenger. Not only can it land and take off without any run, but it can "hover"—and go backwards when necessary!

Some machines are already in use with the U.S. Army Air Corps: orders for others have been given to the Vought-Sikorsky Company, which sponsored Mr. Sikorsky's idea some years back. On May 6, 1941, the helicopter was flown at Stratford, Connecticut, for 1 hour 32 minutes 30 seconds, to establish a new world's duration record: the previous record, of 1 hour 21 minutes, had been held by Germany since 1937. In the previous April, Mr. Sikorsky had fitted floats on his helicopter and made several successful take-offs and landings on a river—the first flights ever made by an aircraft of this type from water.

THE AMPHIBIAN LANDING GEAR which can be fitted to the helicopter in a very short space of time. It is built up of light, durable pontoons of rubber-canvas divided into compartments (as a guarantee against total puncture) and then inflated

SIX SOLUTIONS IN SEARCH OF A FÜHRER

Or, What is the Mystery of Hitler's Disappearance from the Gaze of his Adoring Public? By FERDINAND TUOHY

ON April 20 there will be fresh occasion to test the validity of the argument that "something has happened to Hitler." He should then be fifty-four, and preceding birthdays have been signalled by a personal message. The obvious and simplest proof would be the transmission of his remarks by land-wire from his headquarters, or by a recording. This would mean a few minutes' break in the Führer's toiling self-dedication to his troops, but civilian Germany has a good claim on those minutes.

The familiar stomach-bellow and mentality and mannerisms of speech could be tested by innumerable ears, an opportunity denied since September 30 last—a subsequent harangue on November 8 was not broadcast—and the uncertainty be ended concerning proclamations read on Hitler's behalf in the interim, which sounded like parodies. It would also be normal for the Führer's dulcet tones to be heard should the Allies invade by April 20.

Getting down to cases, when Hitler spoke in September he said he had grown unaccustomed to speech-making, which he was leaving to Churchill; and in fact it was for him a fumbling performance, topped by a resounding promise that Stalingrad would be taken. On November 8, in the Munich beer-hall, photographs were taken which revealed a startlingly altered Hitler. Ward Price, who knew those Führer features well, had to examine at length through a magnifying-glass before he could say positively of the bloated, tousled, frenzied creature, "It's he all right."

Next came the three days' national mourning for Paulus and his Sixth Army. Was this extraordinary procedure in the middle of a war merely to impress on Germans the seriousness of the situation? The Nazis have always criticised the Kaiser's lot for failure in this respect, with resultant sudden cracking of civil morale when things began to slide in 1918. Was it also Corporal Adolf's way of telling civilians how fortunate they were compared with soldiers at the front?

When, a few days later (January 30), Hitler failed to materialise at the microphone on the tenth anniversary of his accession at the head of the Third Reich, it was too much for lively-minded Americans. Headed by a former Ambassador to Moscow, millions decided the Führer was dead. That mourning had been for him. Goebbels's circulation of a photograph depicting Hitler as alive on February 7 was dismissed as "quite an easy concoction" whose "plugging" to newspaper offices only reinforced the death argument.

So this is Solution One in the current hunt for the facts about Hitler: that he is dead, though by what agency—a fit?; his own little pistol?; assassinated?—there is small alacrity to argue. But the myth about Hitler pulling Germany through is so powerful that he must be kept officially alive or public confidence would wane rapidly. Not even the faking of a hero's death on the battlefield would counteract the loss of confidence. Only when victory smiles again can the risk be taken of allowing Germans to know that which various circumstances will gradually have led them to suspect.

Solution Two in search of the Führer is that he is under physical restraint, having lost his mind. That beer-hall photograph would substantiate this, and so would his oft-cited past ravings and well-known paranoiac state. Long a border-line case, the mounting strain induced by Hitler's lonely riding of the eastern ghastliness and failure finally produced certifiable madness. Out of the question, though, to admit as much, because that would be telling the Germans that their war-waging had been the outcome of lunacy. Besides, who knew but that the Führer might, under treatment, grow presentably rational once again? If his case were conclusively shown to be hopeless, there would be time enough for Himmler to arrange an "accident," or, perhaps, that hero's end.

A third solution has it that Hitler has been superseded by the German High Command, which is gradually fading him out as regards the public. Not only because he has shown himself to be a crazy strategist, but as the first and main plank of a plan aimed at bringing into negotiations a de-Hitlerised Germany and the Allies. Adherents of this theory envisage Hitler as still at some Field Headquarters, but no longer in control, and his actions and movements subject to the decision of the Supreme General Staff. In support, it is claimed that a number of high officers known as "Hitler men" have been removed, while others who were dismissed by the Führer have been brought back. The Supreme General Staff is spoken of as following two principal trends. One favouring Göring, who has gone out of his way to visit responsibility for everything on the adored Führer and who is thought to stand the best chance with the Anglo-Americans; and a second favouring a deal with Russia which the treacherous Hitler could never hope to achieve. In the latter camp are high officers who never were for fighting Russia but for a reciprocal arrangement with her.

Solution Four is straightforward. Hitler has had a return in aggravated form of the throat affection which formerly caused him to cancel all his engagements. This would account for his not being able to appear before the microphone, recording or otherwise. But an objection is that his previous illnesses were made known at the time, and why could not a similar malady be made known now?

Next comes an explanation that it takes a lot to begin to masticate, let alone to swallow. Hitler is willingly fading himself out! He has realised that the stakes he gambled for are irrevocably lost and that his continuance at the top will bring only unutterable disaster on the German people he loves so. He must accustom them gradually to the absence of his voice. Without him they will get bearable terms from the enemy. One day they will thank him. Who knows even, but that he may be able to reassert his magic in the chaotic Europe that lies ahead?

There is one thing to be said about this. Hitler has schemed and accomplished such daft and sometimes brilliant things that every crazy subtlety is capable of lodging in his brain. The man who raved against Russia, who made as good as an alliance with her overnight, and a few months later leapt upon that same Russia, may be planning to get back to an understanding by quitting Russia and by eliminating his detested self. What would Stalin see, then, behind the German frontier? The Germans already say they are as good as Bolshevised by the new decrees, and the one who has strode forward as Hitler has taken to the shadow is the one-time extreme revolutionary Goebbels.

Solution Six is popular with people who profess to have no use for "wild ideas." It is to the effect that Hitler is simply lying low in bad times—no music-facer he. And that he really is still up to his neck in it, planning new campaigns to take the place of old and frustrated ones, and breathing his personal presence over and about his hordes of hard-suffering fanatics.

His absence from the microphone when it could have been placed under his nose on his headquarters table? "Let them miss me," he may have said. "That way I'll know more of what they think of me, and also more of the world's mind." It may have seemed a good idea to Hitler to mystify the universe. Gestapo listeners will have produced a copious report on reactions in Germany. The monitoring of foreign broadcasts, together with sheaves of newspaper clippings from the world's Press, will have been reduced to précis form by the Goebbels Information Office.

"The Great Hitler Mystery" may be nothing more than the decision of a spellbinder to remain unheard as he has nothing cheerful to say. Even when things were going well last September, he told his audience he was getting out of practice, as, indeed, that Stalingrad promise showed to be the case. Supposing he had blundered into more promises on January 30 and February 24? Hitler diatribes have never been without promises, and any new ones must have fallen distinctly flat. Hitler's quietude may be the strategy of a shamefaced one lying low until, he hopes, he will be able to fill his lungs again on victory bulletins, so staging a swift come-back.

If this be the answer to the "something-has-happened-to-Hitler" conundrum, there are several other things besides the above six that may yet happen to him.

Mr. H. G. Wells has proposed that he should be put in a criminal lunatic asylum and kept there for the duration. Under correction, I believe from the same quarter came the supplementary suggestion that Hitler and Mussolini be put in a glass cage for despatch on a world tour. Other solutions provoked immediate and indignant protests from St. Helena and the Outer Hebrides.

There is, of course, the chance that the Führer will wind up facing a court composed of people like Lord Simon, though some deem it just as likely that anti-Christ will succeed in making a getaway by U-boat and finish in seclusion somewhere up the Amazon or on an unmandated Polynesian islet.

The only thing there seems to be any certainty about is that Adolf will not finish on the serene Obersalzberg.

THE FÜHRER AS HE APPEARED ON NOVEMBER 8, 1942, when he addressed his Party members in Munich, his last appearance in public in Germany. Since then he has made no more speeches, although occasions have demanded his physical presence. Why not? It may be that the two pictures above contain something of the answer. People who know Hitler well could hardly give credence to them when they were published a few weeks ago. They certainly show a physical deterioration of the most extraordinary nature. Normally, the Führer is spruce and neat, as shown in the picture on the right: above he appears to possess all the outward characteristics of a paranoiac. On April 20 Hitler will be fifty-four: shall we then hear his bellowing voice once again, and will his adoring people be once more allowed to gaze on his features?

Hitler as a soldier at the front

THIS IS THE HITLER THAT WAS: A picture taken in June last in his chancellery in Berlin. It shows the characteristic Hitler hair and moustache, albeit the facial features and the chin are beginning to thicken somewhat

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export

A HUGE GERMAN VEHICLE CAPTURED IN THE DESERT CAMPAIGN: This is a Mercedes-Benz, one of the biggest vehicles captured by the Eighth Army from the Afrika Korps. It is a medium, semi-tracked vehicle weighing 11 tons, used as a tractor for the 88-mm. multiple-purpose gun of which Rommel made such great use throughout the Libyan fighting. The provision of seats would indicate that the vehicle might also be used as a troop transporter: it was obviously specially designed for desert warfare. Unlike the tank, this type of vehicle is quite unarmoured: it, and its complicated double-bogey system for the tracks, are thus vulnerable to artillery or machine-gun fire

GERMAN VEHICLES in N. AFRICA: *Some New Pictures*

The pictures reproduced here have all been received during the past few days from the Tunisian battle areas, where the fighting has, once again, largely been a conflict of tank versus artillery. Many of the German Panzers were badly mauled in consequence—especially during Rommel's attacks on the Eighth Army before the Mareth Line, when no fewer than fifty tanks were captured in one day. The Mark III type shown in two of the pictures forms the mainstay of the lighter squadrons of the German Armoured Divisions in North Africa

A GERMAN MARK III TANK, destroyed by British anti-tank fire. This enemy fighting vehicle took part in the German push towards Thala with the 21st Panzer Division. Note the spare tracks in front which reinforce the armour. Machine-guns are included in the armament, in addition to the 5-cm. gun in the main turret

WHAT HAPPENS WHEN A TANK RECEIVES A DIRECT HIT. The heavy mass of scrap-iron in the foreground was once a gun turret: the tank on which it had been mounted must have received a direct hit, because the turret has been lifted off completely and hurled some distance away

ANOTHER VIEW OF THE MARK III TANK, with one of the German crew lying dead beside the gun turret. The Mark III has played a large part in the fighting in Central Tunisia and before the Mareth Line. Of the fifty tanks captured by the Eighth Army following the battle on March 6, twenty-nine were Mark III's, eight of them of a new type equipped with 75-mm. guns

WHERE THE EIGHTH ARMY HAS BEEN FIGHTING IN FRONT OF THE MARETH LINE: THE THREE WADIS WHICH PROTECT THE MAIN FORTIFICATIONS. These run nearly parallel with the Line (which, here, is shown in diagrammatic form). The wadis are steep-sided, being some 15 ft. deep and only climbable for vehicles at certain spots which Rommel is heavily guarding—*Drawing by Percy Home*

The battle terrain, to the south and south-east of the original French works based on the village of Mareth and the Matmata Hills, presents to the Eighth Army some juxtapositions of well-defined features which differ greatly from one another, and which have, in consequence, forced the fighting in certain directions. On the extreme right of the position (as seen from the Eighth Army area) there are a succession of marshes and bogs of an almost impassable nature, especially at this period, when local heavy rains have filled up all the marshland to an unusual extent. In the central area, there is a slightly undulating region crossed by the original French Mareth Line. In front of this zone is a stretch of nearly flat desert, traversed by three well-defined wadis. These are steep-sided and can only be entered by vehicles at places where the ground slopes to the rough gully-bottom. The depth of the wadis is about 15 ft.: the width varies considerably. To the left of these natural bunkers is a rolling cluster of rounded foothills lying at the base of the precipitous Matmata heights. This deeply-seamed mass, 2,000 ft. high, has provided cover and gun positions for lurking enemy forces. Only the stretches of marshland have been unusable for battle purposes by both sides.

WHY ROMMEL USES LAND-MINES

Obstructionist Tactics Unique in Modern Warfare

IT is said the sea-mine was invented by the Russians. All sides used land-mines in the last war, but mainly as controlled charges for the sapping of strongholds. Then there was the curious *minenwerfer*, a mortar for the projection of what were really the originals of to-day's "pancake" mines. But nobody thought of the mine as a *large-scale substitute for artillery*—till the German Army, with little cash, began its surreptitious re-arming. Then some clever artillery or engineer officer produced an interesting calculation, to prove that mines used on a monster scale would have very much the same effect as an artillery barrage and would be much cheaper.

The artillery for a normal infantry division would need some eighty lorries to transport its first "allotment" of ammunition—160 tons. The weight would be formed by about 15,000 shells of an average of 25 lb. apiece. A barrage lasting 30 minutes on a front of one mile by half a mile would entail some 500 shells a minute—not a heavy barrage, and not heavy enough to stop armoured formations moving through the half-mile in five minutes. It would, in fact, involve one shell in each 3,000 square yards a minute. Now supposing, calculated Rommel, the eighty lorries carried 10 lb. (average) mines.

Each lorry could take about 450 mines, and the eighty about 36,000. These laid in the mile by mile-and-a-half area, spaced 5 to 6 yards apart, would completely fill the front. Armoured formations would not stand a chance of penetrating that until their sappers had wasted a great deal of time at clearing laneways—laneways which the defenders could ambush with anti-tank artillery at the other end.

Consider also the relative portability of small mines and big shells over the dangerous communication lines between Greece, Italy and Rommel, as well as the current shortage of guns in the German Army, and one will understand why the African general attempted the wholesale experiment.

He developed many new ideas in mine-laying. Our men came across vast expanses of the desert sown in deep chess-board pattern with some 80,000 to 120,000 single mines (which, however, only required a few trips by eighty lorries to transport). The chessboard pattern made it difficult to check the extent of the fields by aerial photographs (unlike straight-line mining) and also made it harder to blast a passage by shell or bomb, as the mines were not so likely to explode one after another in rows.

A SERGEANT AND SAPPER OF THE ROYAL ENGINEERS digging out one of the many enemy mines planted along the Thala-Kasserine road in Tunisia. Note the German warning boards, "Achtung—Minen," erected for the benefit of their own troops

Then the Afrika Korps experimented with the co-ordination of minefields and anti-tank artillery. They learnt it was unwise to fire at tanks approaching minefields: fire was best reserved for those which succeeded in penetrating or by-passing the fields.

Finally, the foxes devised new types of mine, one which did not explode at the passage of a light vehicle but reserved its malevolence for the pressure of a tank, another which did not explode for days and defied all attempts of detectors to find it—till half the Eighth Army had passed.

And it all did fit in very nicely with the final German strategy. We can only guess at Rommel's orders, but he must have been instructed to hamper the Allies at all costs, so that they would be unable to mount an offensive against Italy or Greece until as late as possible in 1943. The mine provided a perfect instrument. It was cheap and could be laid quickly—a thrust with the shovel, an insertion of the "pancake," a thrust of the sand or rubble back—and each cunningly-placed field would probably delay the Eighth Army for several hours, aggregating to days, weeks, months. . . .

D. C.

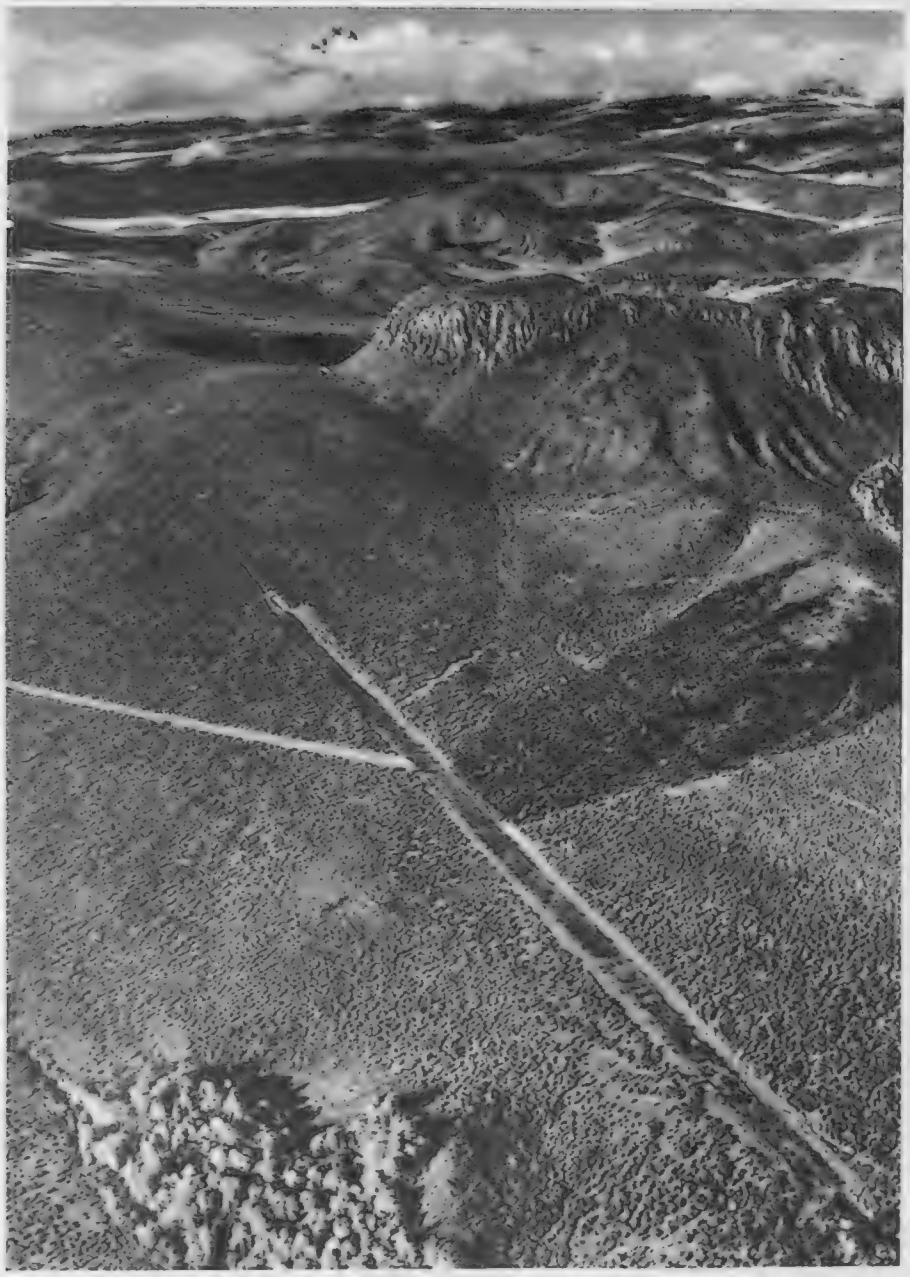
PROBING THE APPROACHES TO THE MARETH LINE: MASSES OF JEEPS, FITTED WITH ARMOURED SCREENS AND MACHINE-GUNS, act as the spearhead of the Eighth Army's advance to the desert country in front of the line of fortifications held by Rommel—*Drawing by E. G. Lambert*

This drawing indicates a method adopted by General Montgomery for dealing with the new conditions now facing the men of the Eighth Army at the approaches to the Mareth Line. Hundreds of jeeps have been sent bumping over the hummocky deserts of Southern Tunisia "like a Lilliputian battle armada," as an armoured spearhead against the Axis forces entrenched along the Wadi Metamer, west of Medenine. Each of the jeeps has been fitted with a steel shield in place of its former windscreen, and a heavy machine-gun has been fitted on the bonnet. The Germans have been finding these small vehicles difficult targets to hit. The little cars have also been used, in the manner indicated in the drawing above, to take infantry up to a desired point, each car conveying some half-dozen men. It is probably safe to say that never before in military history have mechanised transports been used in such numbers as in the present Eighth Army

HOW THE AMERICANS IN TUNISIA BEAT OFF AN ATTACK BY GERMAN PANZERS: American tanks, artillery, mortar batteries and infantry repel the re-equipped Afrika Korps' first thrust against Tebessa, in face of heavy Stuka attacks—*Drawing by W. G. Whitaker*

After the re-equipping of the Panzer Division of the Afrika Korps, Rommel ordered a thrust against the town of Tebessa, in Central Tunisia. The Americans holding the line at this point were a body of veterans who have already taken part in a number of major battles. The Germans first pulled one of their usual tricks: they threw some armoured vehicles forward to induce the American batteries to open fire. They then sent eight Stukas to bomb the batteries. As soon as they had created the desired diversion, they sneaked infantry up a wadi ahead of the tanks. Then their bigger Mark IV tanks were sent in; and it almost looked as if a break-through would occur. But soon the American artillery opened up, throwing up clouds of smoke near the lumbering targets, and then beginning to register hits. Six tanks were thus destroyed, and the rest began a hasty withdrawal. Then the guns of the advancing American tanks came into action. The Allied vehicles, in perfect formation, swept up the valley behind the retreating enemy—one line firing, then straddling the line ahead while it, in turn, stood firing. Heavy fire from the mortar batteries and machine-guns of the infantry checked the German foot soldiers; and the U.S. artillery kept booming away; until, finally, the Afrika Korps retreated

FEATS CARRIED OUT IN WARTIME



EAST AFRICANS SAVE AN R.A.F. PLANE by building a long runway on a mountain-side in Kenya. The aircraft had made a forced landing above the forest belt on the rugged slopes of Mount Kenya: the crew, led by the warrant officer pilot, made their way to safety. It seemed as if the aircraft would become a total loss, until 150 natives of Meru village near by volunteered to build a runway. Their tools and equipment were carried to the scene on their heads: working from dawn to dusk in intense cold, they cut heather, dragged trees to bridge gullies, carried rocks to fill holes, and finally stamped the surface level with their feet. They gathered with triumphant cheers as the plane took off. The rainy season broke that night, and the workers slid down the streaming slopes to their homes, wet through but proud of a big job well done! The picture above shows the runway, with the aircraft standing ready for the take-off at the end of it. To the left is the road along which the plane was pushed from the place where it landed on the mountain-side. In the background are the banks of cloud hiding the mountain peaks. The runway was long enough for the plane to take off and re-land if necessary

A RESCUE IN THE MEDITERRANEAN: An Italian bombing plane meets its end after attacking British shipping. This picture, just received in London from an enemy source, shows the rescue of the crew of an Italian Alcione bomber, which had to make a forced landing in the Eastern Mediterranean while returning to its base after "having successfully bombed a ship of 5,000 tons in the Nile Delta" (according to the Italian caption). When the bomber found it was impossible to get home, an SOS was sent out, giving its position: a Red Cross seaplane was sent out in search immediately, and after sixteen hours a rescue was effected. Two of the crew were seriously wounded. This picture shows them being taken aboard the Red Cross plane on a stretcher

A MEDITERRANEAN TARGET: An empty Italian tanker is sighted through the glass-enclosed cockpit of an American B25 bomber as U.S. aircraft raided Axis shipping off Bizerta, in Tunisia. The tanker, escorted by two Italian destroyers, was hit and left in smoke

LANDSCAPES MODELLED FOR A WAR PLAN: Members of the W.V.S. at work on one of the mats. About a year ago the War Office wanted scale-model landscapes of Libya for a secret purpose: they asked Miss Lindsay Gladstone, an artist, if she could make them. Miss Gladstone organised a staff of sixty helpers from the Women's Voluntary Service: some of them are at work in this picture. As the models had to be rolled up, like mats, for easy transport, she decided to employ only three materials. Hessian sacking was chosen for the foundation of the mat, and movable blocks of wood for houses, buildings and bridges: the third material was paint. One use to which the mats are put is to teach airmen what the countryside looks like from 10,000 ft. Each volunteer worker has her own speciality. One concentrates on haystacks and trees; others on hills, copses, ploughed fields, allotments, hedges, rivers or houses. The biggest mat made so far measures 30 ft. by 15 ft.: it took two months of patience and invention

MEN AND MATERIAL CROSS A LAKE on a new-type improvised Army raft. This picture was taken in Northern Ireland, when an Army demonstration showed how an improvised raft could carry men and equipment. Iron frames and covers from lorries are used. They are so constructed that the raft can be hauled by rope across a lake quite easily. This new raft can also carry a 30-cwt. lorry with comparative ease

WATER-SUPPLIES FOR THE EIGHTH ARMY OBTAINED FROM THE SALT MARSHES ALONG THE TUNISIAN COAST. The water is purified by special chlorinating apparatus carried on lorries: this work is of great importance in the new areas now occupied by our troops, as otherwise a very long haul, across hundreds of miles of desert, would be necessary. The well in the middle distance, contaminated by the Germans with heavy oil to render the water undrinkable, will be fired with petrol and the surface oil burned off.—*Drawing by W. G. Whitaker*

WATER IN THE DESERT

How Supplies to the Eighth Army of a Liquid Just as Precious as Petrol are Maintained

WADDLING about the Mediterranean before the war used often to be seen an ugly old two-funnelled ship of about 4,000 tons. She rejoiced in the name of *Citta di Siracusa*, and her mission in life was to produce drinking water for Il Duce's garrisons in North Africa, by distilling sea-water and pumping the product into a cluster of barges usually to be seen alongside. Besides her, there were no fewer than thirty quite large modern water-carrying vessels, ranging up to 2,000 tons and more, which tramped between Tripoli and Derna, Tobruk, Benghazi, and the other seaboard towns of Libya and Cyrenaica, with their holds full of fresh water. Such was the territory—not even self-supporting in water—which the Italians had chosen as the site of their new Empire, and such was the territory over which the Eighth Army has advanced by what can only be called prodigies of maintenance and supply.

This water shortage may contrast oddly with recent reports of the muddy quagmire which enabled Rommel to disengage himself from our pursuing armour. The bulk of the North African rainfall (which varies tremendously from year to year) falls in the winter months, from November onwards. After heavy rains, whole stretches of country may be flooded, but the water soon soaks into the stony ground, whence most of it is soon evaporated by the searching winds. Some of it does percolate down between the rocky strata and replenishes the reservoirs from which the oases are fed. In the Libyan desert, waterless stretches of several hundred miles are quite common, hence the importance of the wells at such places as Kufra, Tazerbo, Merga and Uweinat.

The normal inhabitants of this area are the predatory Tibu tribes, whose hostility to the Italians and perfect knowledge of the barren terrain must have made them valuable allies of our forces. They are reported to be satisfied if they can drink every other day, and the fact that on some of their desert routes the wells are five days' journey apart, certainly lends probability to the tales of their stamina and endurance.

But what may be good for a primitive tribe is obviously absurdly inadequate when an army of tens of thousands, with its attendant vehicles, suddenly descends on the scene. Despite meticulous use of the natural supplies—we have sunk many new wells and re-excavated many excellent old Roman ones—we have had, like Mussolini, to import huge quantities of water by sea. At Tobruk, on one day, for example, the Navy landed 1,250,000 gallons. Even on the very meagre ration of one bottle-full a day—say, a quart per man—a single division would need about 4,000 gallons (weighing about 18 tons), while making no allowance for washing, cooking, first-aid purposes or motor-vehicles. Bearing in mind the tens of divisions involved, and the fact that advances of 40 miles a day or more were not uncommon, one begins to get some conception of the dimensions of the problem.

Tobruk actually has quite productive wells, but the water there is very noticeably salt. It is not until Derna is reached that reasonable supplies of good quality water are available. In the hills behind the town, at a place known as Ain Mara, is one of the very few dependable streams in Cyrenaica. It is carried from the hills towards Derna by old aqueducts, and at the time of our last November "push," the Italians had put in a lot of work, constructing a new pumping station, with a large reservoir on its roof. Very nicely planned in the modern concrete fashion, it was speedily put in working order when our own R.E.s arrived, and has been of great value ever since.

Knowing that water is virtually as vital as petrol, it was not to be expected that the enemy would have left us any useful supplies if he could help it. Although the contaminating of wells is contrary to the rules of war, it was soon found necessary to warn our troops against the use of any supplies until they had been tested by the Army field-sanitation units. Not only were the approaches to the water liberally mined and booby-trapped, but where wells themselves were not dynamited, they were usually contaminated in some way or other. The carcass of some dead animal might be found floating in the water, but a more common Nazi trick was simply to pour gallons of waste lubricating oil—the crank-case drainings of tanks and lorries—down the wells. This proved a difficult trick to circumvent, until one sapper thought of adding a gallon or two of petrol to the oily layer and firing it, which soon reduced the water to a condition in which, after chlorination, it was quite drinkable. Only on very rare occasions now do soldiers drink unchlorinated water, though it is now done so skilfully that it is often impossible to detect it.

As soon as things settle down a little, the mobile water-purifiers arrive. Externally they look like petrol lorries, but on being driven up alongside the most stagnant ditch, they are capable, within a few minutes, of delivering pure and palatable water at the rate of several thousand gallons an hour. The lorry's engine operates the pumps for the suction and discharge of the water, and circulates it through filters, while a current from the battery generates chlorine in a special electrolytic cell, the amount added to the water being enough to make it safe, but no more. It was a plant of this kind that was inspected by H.M. the King recently. Less elaborate outfits, ranging down to one-man portable sets, that can be operated with a couple of old petrol-cans, nowadays enable the smallest platoon to make sure of a safe water-supply, whatever tricks the enemy may have been up to.

A. D. McCracken

SUPPLIES FOR THE ARMY UNLOADED FROM THE SEA. In this case, the drums contain petrol, brought to Ras el Aali beach for the Eighth Army by naval craft. The drums are being floated ashore by troops, who prefer to work in the nude, despite the cold seas and winter winds

"RASPUTZA"—THE THAW. Conditions behind the Russian lines when a sudden break in the cold weather bogged down the advancing Soviet forces in th Donetz area and gave the German enemy the respite for which they had been praying—*Drawing by E. Byatt*

The word "Rasputza" means "the disappearing of the roads" when the Russian snows begin to melt. What follows is not just mud, but (as one military correspondent has described it) "a kind of formless mass of porridge with a still frozen road surface underneath. Roads and paths are no longer recognisable and movement is much more difficult than in the worst mud. Men, beasts and vehicles not only sink into the Rasputza, but slither hopelessly about. Last year Rasputza saved the Germans in Russia: it made the Russians pause when the Germans were on their last legs." Apparently, a similar situation has arisen this year, too—at least on the vital Donetz front, where the Red Army's impetuous advance was held up towards the end of February as a result of the road conditions, which did not permit of the free movement within this secto on which the Russians were relying. The drawing by Mr. Byatt above has been reconstructe from photographic material which shows the difficulties with which the Russians have had t contend. The gun on the left is being drawn by an American-built tractored lorry over tre branches which have been laid down to form a road over the "formless mass of porridge" int which the road has deteriorated. In the centre, white-clad soldiers are making a road for thei horsed transport in similar fashion; whilst on the right one of the tough transport ponies ha gone down up to its neck in mud

THE COMING OF THE THAW IN RUSSIA

The Unwelcome "Rasputza" which Held Up the Red Army's Advance in the Donetz

Along the fighting line in Russia a most unwelcome thaw has occurred. It was first definitely reported on February 20, though hard frosts were predicted as being likely throughout March, and even in April as far north as Leningrad. But so far the thaw has continued, and in the Donetz region has begun to hamper the movements of the Red Army. This fourth winter of the war has been distinguished from the three preceding ones (all of which were marked by great severity) by its mildness.

Early last November Hitler announced that "This winter our preparations will be quite different, and let the winter be the hardest ever, we shall be ready for it." Certainly every effort seems to have been made to render the German soldier more able to withstand the rigour of the Russian winter. But, though the winter has been mild in comparison to last year, it has been severe enough for the German armies. Their huts and dug-outs might have had more comforts than last year, but the enemy could not stay in them when the Russian troops threatened encirclement, and they had to retreat across open country, facing the fierce winds of the Steppes and fighting their way through blizzards.

The Russians, on the other hand, seem to defy the winter, and to force its severity into serving their ends. With the first sign of its approach, at the beginning of November, they made their great attack on the German army at Stalingrad and along the Donetz, driving back the enemy, allowing him no respite, till at the end of four months' continuous fighting Stalingrad was relieved. Rostov, Kursk and Kharkov were then recaptured. This had meant tremendous exertion on the part of the victorious army, but no difficulties seemed too great to be overcome. The Volga did not freeze as thickly as was expected, making it unsafe for heavy transport; but we are told that the Red soldiers crawled over the thin ice, lying on their stomachs, pushing shells in front of them. Munitions of all kinds were pulled across with ropes, or pushed by poles, all entailing strenuous effort. To thicken the ice, the snow was swept from the surface, whereby the ice was exposed to the colder air, or water was poured over the surface of particular crossings to make them freeze quickly. Holes in the ice were patched with blocks from another section.

TRANSPORT DIFFICULTIES FOR THE GERMANS IN THE CAUCASUS, where the Nazis have been using cater pillar cars on the mountain roads, and where the effects of the recent thaws have been very noticeabl

On the Donetz front, what are known as "ironed roads" were made by tractors and tanks going ahead through the snow, followed by cisterns spraying hot water which rapidly freezes, producing a hard, solid surface. Though this breaks up with much use, it can be quickly repaired. Every aspect of winter campaigning had been thought out and methods evolved to exploit them. There is no doubt that the early thaw is not welcomed by the Russian generals, though the civilians in Moscow, drastically cu of domestic fuel, may feel relieved. In the Ukraine th ground has been steaming under the warm sun, the me have begun to remove their cloth helmets and to su themselves. The present thaw appeared first in the south but within a week (February 27) it had affected the Kharko area, and the Soviet commander there was reported t have said that he expected a lull in military operations a transport becomes more and more difficult.

Frosts are still hoped for, as this early continuous thaw is abnormal; if they return it will give the Russians mor time to continue their winter campaign. B. H.

HOW THE RUSSIANS FIGHT: From their armoured train (known as the "Urals of Stalin"), white-clad Red Army scouts rush a German position. Their advance is covered by artillery fire from the camouflaged train

Amidst the deep snows Russian machine-gunners creep up to the enemy positions. The Red soldiers are wearing the now-familiar uniforms which blend with the snow

A Red Army "tank destroyer" in action on the open, snow-covered steppes. The Russians have achieved great success with these weapons, even against the biggest tanks

What happens when a "tank destroyer" scores a hit. The Nazi tank in the foreground is on fire: one of the crew who attempted to escape through the hatch is lying where he fell, killed by a Russian bullet

The demolished railway station at Kursk after its recapture by the Russians. When the Germans had been driven out, the town was found to be in ruins and all the main buildings destroyed

Residents of Kursk returning to their homes. Soviet citizens follow close on the heels of the Red Army: no time is lost in setting up Governing Committees and getting industrial activities under way

The people of Rostov hear about the Red Army victories. Captain of the Guards Burmensky (former Vice-Chairman of the Rostov City Soviet) is telling the inhabitants the latest news

Red Army tanks in Lenin Street, Belgorod, after the town's recapture by the Red Army. Burnt-out buildings greeted the Red Army on every hand as they entered the town

ALLIED ASCENDANCY IN THE AIR IN TUNISIA

—A Drawing made Specially for this Issue by EDWARD OSMOND

Since the early days in North Africa, the R.A.F. has grown so strong that Air Superiority is now undoubtedly ours. Bombers and fighters are now crowding the skies, and valiantly supporting the efforts of the men on the ground. To the troops of the First Army it is a relatively new experience. One correspondent has described the scene depicted by Mr. Osmond above in the following terms: "Lying on the crest of a hill overlooking Beja in the mid-spring sunshine I saw the sorties pass, one after another. . . . As our planes came back doing victory rolls I could see the men of the First Army in the plain below rising to their feet, cheering and throwing their caps in the air." With the improved weather in Tunisia, R.A.F. Hurri-bombers have been in action continually, attacking at low level enemy transport right down in the valley and enemy positions on the hillsides. On occasions, as many as eight waves of fighter-bombers have been attacking sections of the front in one day

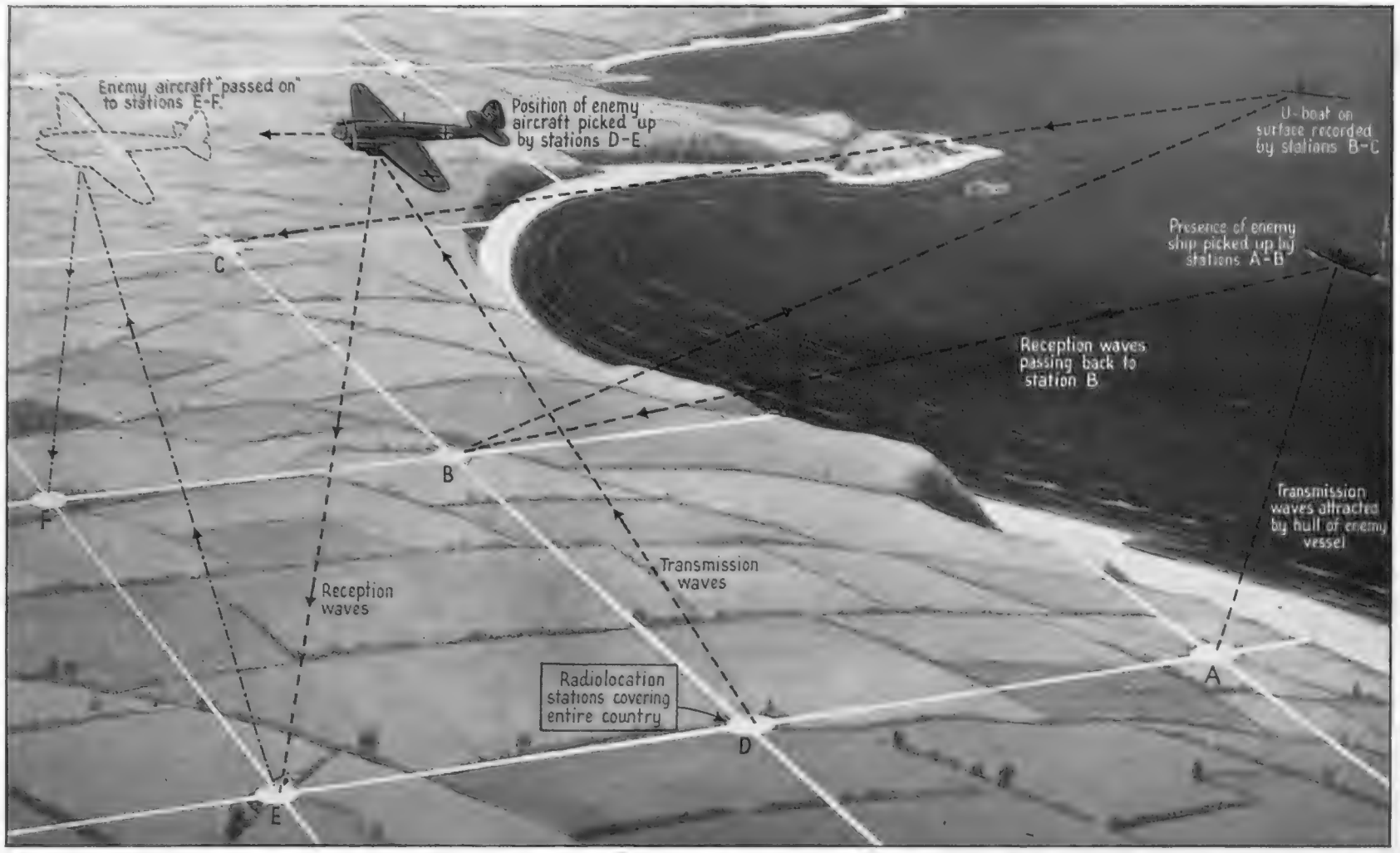
THE MEN OF THE FIRST ARMY APPRECIATE THE TURNING OF THE TABLES ON THE AX
side of the ridge in the mid

On right—Some of the fighter pilots at an advanced air base in North Africa. The whole unit is under canvas in a grove of eucalyptus trees

In centre—Pilots of a Bisley light-bomber squadron, who are co-operating in the harrying of the Hun—a picture taken in an off-moment behind the "Mess"

On extreme right—Preparing for a sweep over enemy territory: Armourers of the squadron prepare a Hurricane for action. Two bombs are suspended from the wings

AXIS IN NORTH AFRICA: British troops, operating amidst the Tunisian hills, cheer as our fighter bombers return after a sortie against enemy positions on the farther middle distance. The aircraft are Hurri-bombers (Hurricanes fitted with bomb-racks in addition to their guns)



RADIOLOCATION: A NEW AND SIMPLIFIED EXPOSITION OF HOW THE NETWORK OF STATIONS THROUGHOUT THE BRITISH ISLES OPERATES in checking the movements of enemy raiders by day and by night. This system, however, is not entirely reliable against low-flying aircraft—*Drawing by L. Ashwell Wood*

THE WAR BY AIR

Radiolocation in Britain—How It Works; and Details of Our New Fighters and Bombers

In view of recent renewed aerial activity by the enemy over this country, we reproduce the above drawing to show how the network of Radiolocation stations operates throughout Britain, whereby the detection of enemy aircraft (and war vessels at sea) is made possible. The drawing, without revealing any vital secrets, which must still be preserved (and there are quite a lot which the enemy do not know yet!), shows in simple, non-technical fashion how the system works. Any object—whether floating on the surface near the coast, or in the air above this country—is immediately detected by the radio beams; the speed, altitude and direction of any aircraft can be ascertained at once. And, once found, it cannot emerge from the web of Location stations situated over the entire country: the warship or aircraft is handed on progressively to station after station.

As stated before, the details of the system are secret; but, in general terms, it can be said that, by using a great number of small radio sets of modern design, technicians posted at ground points are able to locate enemy aircraft above and to direct anti-aircraft fire with deadly precision. The rays are unaffected by fog or darkness: they are sent out far beyond the limits of our shores—and hence their usefulness to the Royal Navy as well as to the R.A.F.

According to Sir Philip Joubert, it was the need of the R.A.F. to obtain early warning of enemy air attack that brought Radiolocation into being by the development of what might be called a wireless trick in the laboratory into a practical weapon of war. It took about four years of continuous experiment to work it up to the state of efficiency it had reached when the war began. The use of the rays has made it unnecessary to maintain standing patrols of fighters for the protection of certain areas, and thus has saved time, petrol and energy.

There is one important remark which must be made in this connection: as a result of recent daylight raids on Britain, *carried out at low levels*, it has now been stated that Radiolocation is not entirely reliable below a certain level, and that the hedge-hopper on tip-and-run raids takes advantage of the fact

THE WHIRLWIND, a twin-engined, bomb-carrying fighter, is as fast as the Spitfire, blazes 600 shells a minute from the four cannon-guns, and carries two 250-lb. bombs slung under her wings

Until a year ago, the Whirlwind was on the Secret List: it was then stated by the Germans that its top speed was 353 m.p.h. at 16,350 ft. To-day, it is known to be a successful fighter-bomber; and it is being used for Intruder patrols over the coasts of France, Belgium and Holland, during the course of which the Whirlwinds bomb and shoot-up trains and generally disorganise enemy communications. During the last six months, one squadron alone has destroyed or damaged thirty-seven goods trains in enemy-occupied territory; successfully attacked a power station, viaducts and other points; in addition to destroying much shipping in enemy coastal waters. The Whirlwind is a single-seat aircraft, which has two Rolls-Royce Peregrine engines, each of 850 h.p. Its armament consists of four 20-mm. Hispano cannon-guns mounted in the nose in front of the pilot's cockpit. These are capable of firing 600 shells per minute

How the four cannon-guns protrude from the nose of the Whirlwind. These are placed in a special compartment immediately forward of the pilot's cabin

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The AFTERMATH at GUADALCANAR

The Island the Japs could not Conquer and which they have now Evacuated

There are no longer any Japs left on Guadalcanar Island, except dead ones. After months of bitter fighting the yellow men were fought to a standstill by tough American troops, until the enemy High Command ordered its evacuation. The pictures reproduced below show last scenes after the enemy had abandoned the island to the victorious Americans. *On the left* is a most interesting view of one of the contributory causes of the Jap defeat. Rabaul lies on the island of New Britain: it is the principal Japanese base in the South-West Pacific. Day after day, port and town were subjected to attack from the air; its naval, and shipping, concentrations were bombed unmercifully—with great losses to the enemy. In the face of such attacks (and with such heavy defeats as that illustrated on the facing page), the Japs evidently decided that it would be wiser to cut their losses and allow the highly-strategic island of Guadalcanar to remain in American hands uncontested

THE JAPANESE CHIEF BASE IN THE SOUTH-WEST PACIFIC: A picture of the harbour at Rabaul, with a concentration of Japanese vessels under attack by aircraft of the U.S. Army Air Force. It was from Rabaul that operations were conducted by the enemy against Guadalcanar

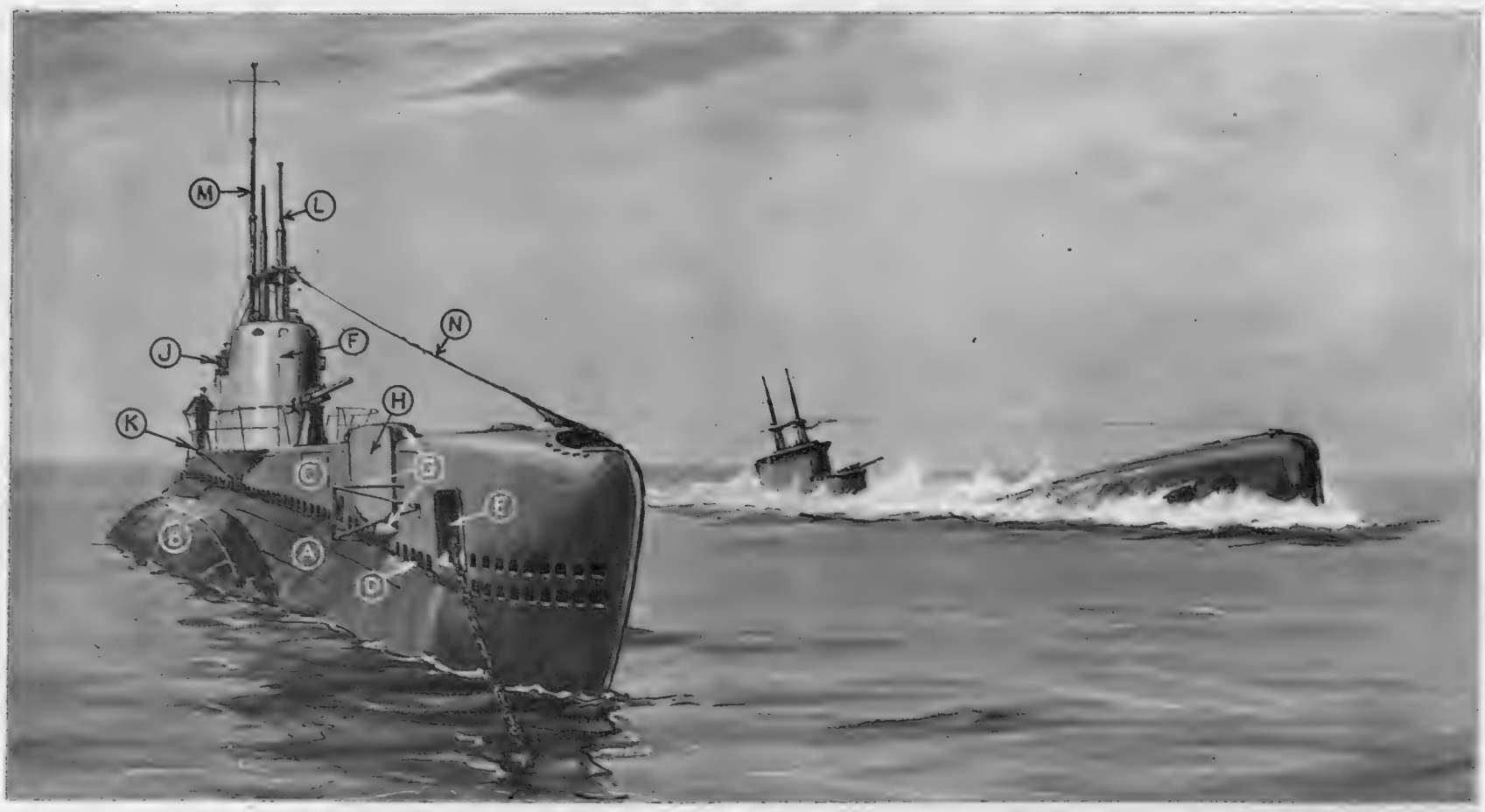
AFTER TWENTY-ONE DAYS IN THE FIGHTING LINE: American troops at Guadalcanar trudging back from front-line positions for a rest. With the withdrawal of the Japs, their task at this point is now over

THEIR TASK ACCOMPLISHED, THE U.S. MARINES LEAVE GUADALCANAR ISLAND: A busy scene on the palm-lined beach as equipment is piled up on the sands ready to be loaded on to the barges which will carry it—and them—to the waiting ships

Guadalcanar Island, in the Solomons, is now firmly in the hands of the United Nations, thanks to the hard fighting the American forces put in there against the Japs over the last few months. Their task completed, contingents of U.S. Marines are now leaving the island for well-earned furloughs

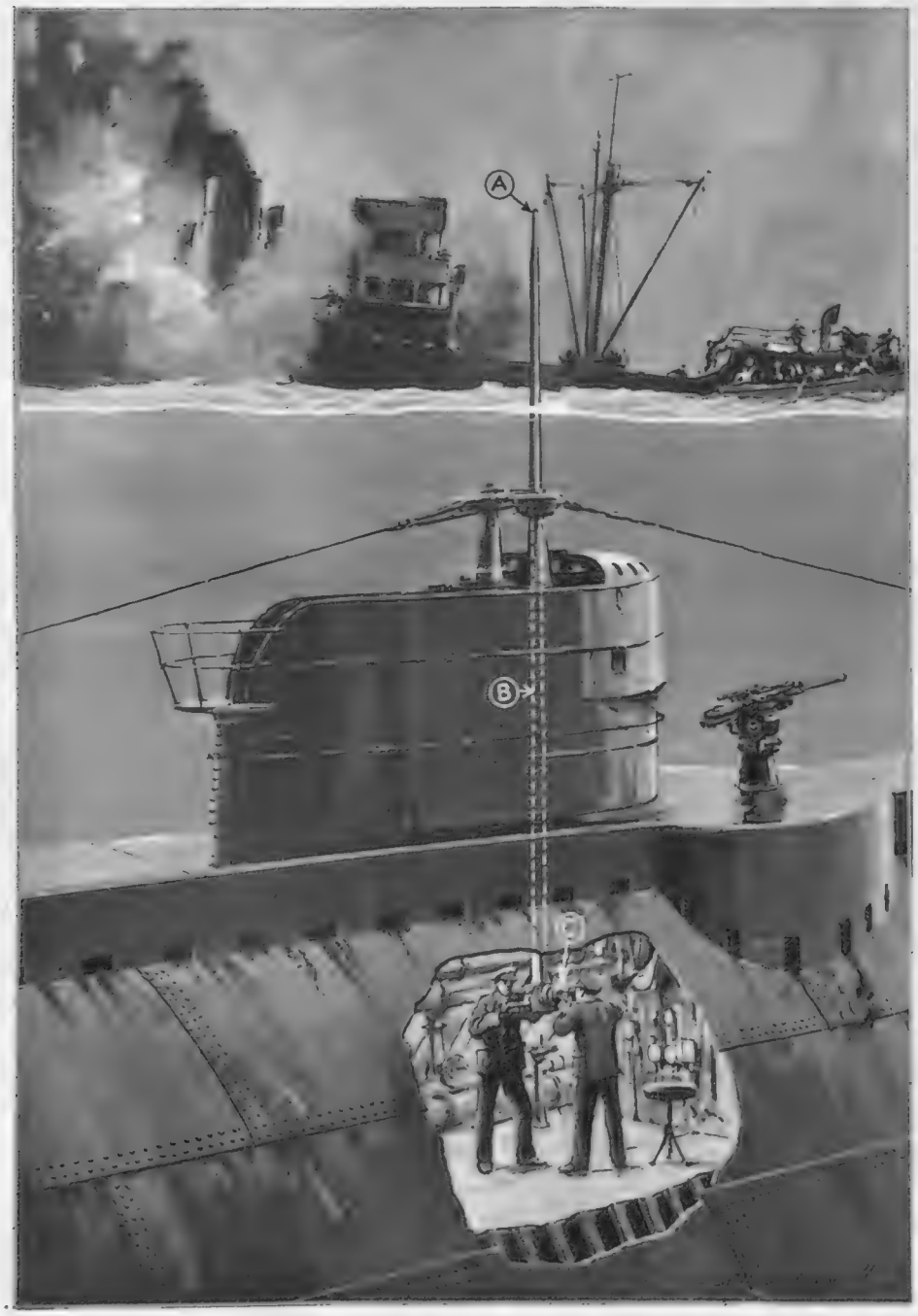
On left

"IN THE LINE OF DUTY" on Guadalcanar. A price was exacted from the Japs in overcoming their hold on the island: but a price was also paid by the United States Marines who landed there and held on until relieved by the U.S. Army. Here the Marines stand over the graves of their fallen comrades: their bared heads are bowed as the chaplain intones the service. These men have come from the front line; some of them stand in shirts ripped to shreds. Palm fronds decorate some of the graves, all of which are marked by crude wooden crosses. Soon after the service was over, the men returned to their guns



THE FORM OF THE MODERN BRITISH SUBMARINE, showing two different types of deck superstructure—*Drowing by Wm. McDowell*

The vessel on the left is a submarine of medium tonnage, whose gun is mounted on the deck below the conning-tower: that on the right is a submarine of the Thunderbolt class, in the act of surfacing. The bulbous bows of this type give a remarkable resemblance to a sperm whale, which latter have frequently been mistaken for submarines! It will be noticed that in the Thunderbolt class the gun is *not* carried on the deck itself but is part of the conning-tower structure. This class—the latest in the Royal Navy—has a displacement varying from 1,090 to 1,575 tons, and a complement of some 53: the vessel on the left would displace about 1,000 tons, and carry a crew of about 40. Here is a key to the points indicated in the drawing: **A**—main pressure hull; **B**—"blisters" for ballast-tanks; **C**—superstructure; **D**—"limber" holes for draining superstructure when surfacing; **E**—anchor recess; **F**—conning-tower; **G**—"fairings" and guards to protect diving-rudder; **H**—diving-rudder (in stowed position); **J**—navigating lights (port and starboard); **K**—gun platform; **L**—periscopes; **M**—telescopic mast; **N**—"jumping wire"



WHY SUBMARINES REMAIN SMALL

Some Detailed Notes on Under-water Craft and Under-water Warfare By M. J. MASSEY

ONE of the most interesting things about the Navy's submarines is that they are one of the few weapons which have *not* shown a tendency to get bigger and more costly as the war goes on. We are now actually building smaller submarines than in 1928. Neglecting the L. and H. classes, now used for training, the Navy now has about nine operational classes of submarines. Really there are only about half-a-dozen types, if we exclude minor variations, and several of the older classes consist only of two or three boats. Undoubtedly, the three most important classes numerically and the most modern are the Thunderbolts (patterned on the *Thetis*), the Ursulas and the Sealions.

The Thunderbolts are 1,000-tonners; the Ursulas 540-tonners and the Sealions are 670-tonners. By contrast the two Severn class boats are 1,850-tonners; the Regents, 1,470-tonners, the Parthians, Oberons and Olympuses—they all date from about 1926 to 1935—have surface displacements of about 1,500 tons.

The *raison d'être* of the submarine is the torpedo, and the tiny *Ursula*, costing only £200,000, with her crew of twenty-seven, mounts six 21-in. torpedo-tubes, which is just as many as the giant *Severn* does (though the *Ursula* probably carries fewer spare torpedoes for reloading). The *Ursula's* gun is only a 3 in., against the *Severn's* 4 in., but this does not make much difference. A submarine cannot fire her guns under-water, and on the surface no submarine, however big, can

HOW A U.S. SUBMARINE RECORDS A "KILL." The camera with which this picture was taken was below the surface of the Pacific Ocean in a U.S. submarine. The camera recorded the image reflected in the periscope lenses after the submarine had attacked and set on fire the unidentified Jap vessel. The vertical and horizontal lines on the picture are gradation marks on the periscope lenses

The drawing on the left (by Wm. McDowell) shows how the picture was taken. **A**—periscope object lens; **B**—periscope-tube; **C**—eyepiece. A photograph could readily be taken thus, by the use of a small precision camera having a large objective lens. It might be necessary to add a short tube to the periscope eyepiece to exclude any light except that which comes down the periscope-shaft. The vessel was obviously a merchant ship of medium size (as evidenced by the mast and derricks on the right above). The bridge structure is in the centre of the photograph; on the left is the ship's funnel, partly obscured by smoke

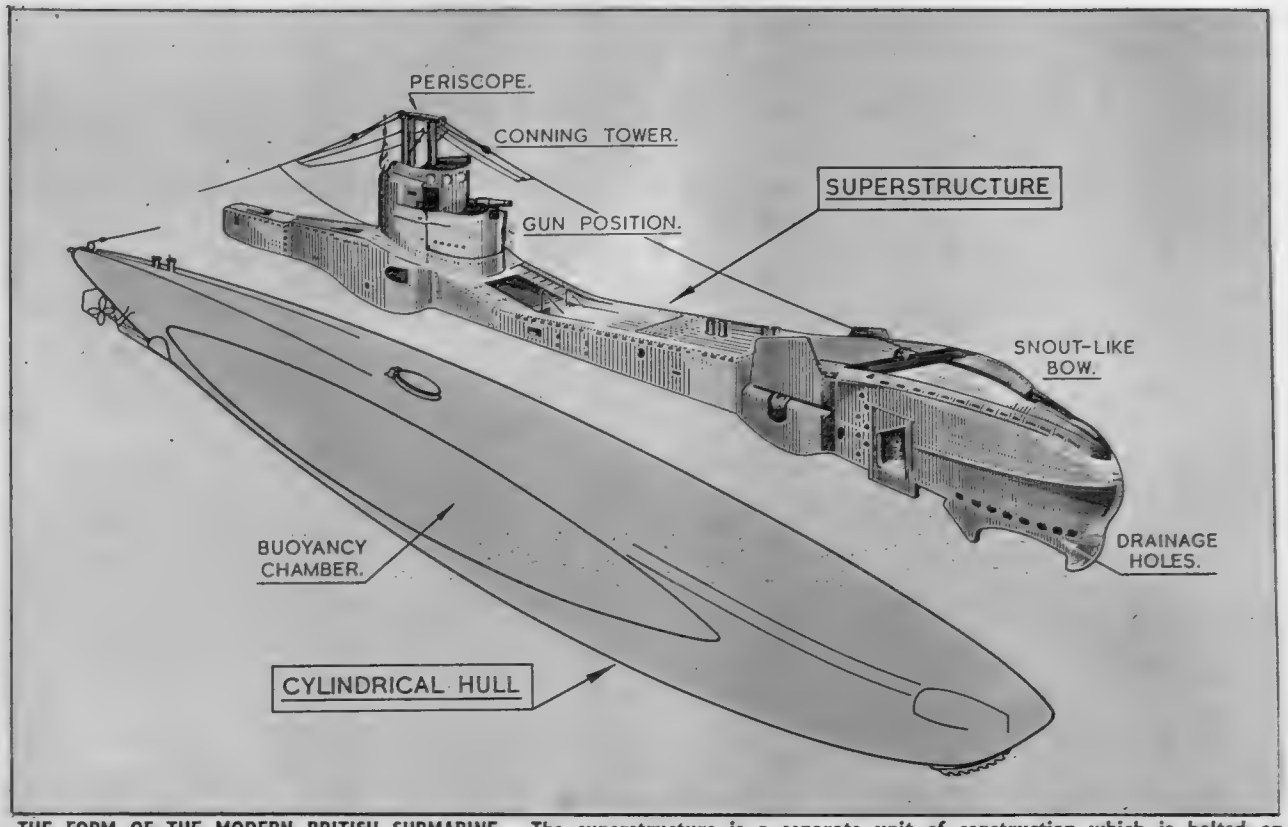
really fight a gun-duel with even the smallest destroyer. Most German bases and commerce routes are in the North Sea, and at the southern end of it, at that. These are exceedingly shallow, sandbank-studded waters, with wide areas in which the maximum depth is more often less than 100 ft. A big 1,500-ton submarine would be at a great disadvantage in such a place. Whereas the little Ursulas and Sealions can crash-dive in 30 seconds, the bigger boats have to be much slower. If they sent their 325 ft. of length down at the same angle as their little sisters, they would run a real risk of ramming their bows well and truly into the bottom. The really big submarine is now at a discount in most navies. We tried out several monsters with huge guns after the last war, and the French *Surcouf* had two 8-in. guns. The obvious role of such boats was as commerce destroyers.

Because of extreme vulnerability to bomb and shell, the submarine must attack submerged, except at night. Therefore, the weapon of attack must be one which offsets the submarine's extremely slow submerged speed—the 40-knot torpedo is the only such weapon.

Inventors often suggest that the submarine should travel in front of a convoy, and drop a string of mines overboard for the convoy to run into. A huge number of mines would be needed to guarantee a hit, since convoys are widely spaced, and zig-zag. But since a U-boat can only do a maximum of 7 or 8 knots when submerged, and this only for a couple of hours (at slower speeds the endurance increases) her chances of ever getting in the right position to drop such a string are obviously slim.

By contrast, the torpedo can travel at 40 knots (equal to 46 m.p.h.), and attacks need not necessarily be made from dead ahead. Although torpedoes are expensive, a well-trained crew can be remarkably accurate, and hits have been known at over 2,000 yards.

Submarines do not travel with 5 or 8 ft. of periscope above water. It is usually only 2 ft., sometimes just a matter of 10 or 12 in. At much over a mile it is almost impossible for a ship to see the periscope, though the periscope will easily see the ship. Forty-eight hours is the practical limit of a submarine's underwater endurance. She must surface while there is still some life left in her batteries, for the pumps which empty the ballast-tanks are driven from these. There is also a very definite limit to the depth of safe diving. For ordinary boats, 45 fathoms, or 270 ft., is the limit.



THE FORM OF THE MODERN BRITISH SUBMARINE. The superstructure is a separate unit of construction which is bolted on to the main cylindrical hull. For reasons of strength, the two portions of the vessel must be built in this fashion. On the outside of the cylinder are the buoyancy- or ballast-tanks. The form of the superstructure varies in detail with the different classes of submarine. This one shows the details of a Thunderbolt's construction—*Drawing by B. C. Wood*

ONE OF THE LARGER TYPES OF BRITISH SUBMARINE—such as the Thunderbolt class—shelling a small enemy supply ship not worth the cost of a torpedo—*Drawing by Wm. McDowell*

On right—In the larger classes of British submarines, the gun, which is situated just forward of the conning-tower, is mounted on a revolving platform raised several feet above the superstructure. This gives a greater visibility and permits of the gun being served in rough weather. In the drawing, the gun platform is trained several degrees to port.

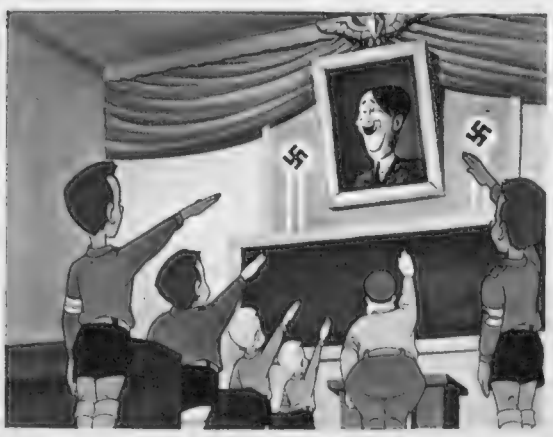
All submarines look very much alike, and, except possibly to their crews, are undeniably ugly boats. Two features tend to distinguish British boats from Nazis or Italians. One is the bulbous, or whale-headed, bow, which is designed in our boats to accommodate the six torpedo-tubes. The second is that in nearly all British boats the gun emplacement is close to the foot of the conning-tower, and often actually built into it. In most enemy boats, the gun is mounted farther forward and quite separate from the conning-tower.

Unfortunately, submarines sometimes surface unintentionally. When steaming at periscope depth in a rough sea the boat may become unmanageable and expose herself completely. The same may occur if the tanks are blown too quickly, or the hydroplanes handled too heavily.

Ordinary movements of the crew, etc., are far to slight to affect the trim of the boat, but the firing of one or more torpedoes does give a sharp, upward kick, and may sometimes also cause her to break surface.

On right—This picture shows a smaller-type British submarine attacking an enemy transport on the surface in heavy weather. The gun is mounted on a circular platform on the superstructure, which makes the task of gunlaying a difficult one if a heavy sea should be running. Guard-rails prevent the gun crew from being carried overboard.

IN THE SMALLER TYPE OF SUBMARINE, serving the gun in a heavy sea is often wet work for the gunners when the weapon is placed in this position on the deck—*Drawing by Wm. McDowell*



WALT DISNEY GOES TO WAR

And takes his Old Creations, Donald Duck, Mickey Mouse and others with him By CHARLES GRAVES

PEOPLE who go to the cinema and who have been finding that they are often seeing the same old Donald Duck and Mickey Mouse cartoons do not realise that this has been inevitable, although a handful of new cartoons are trickling through after a break of six months.

Over 95 per cent. of Walt Disney's current film output consists of Government projects made on a cost-only basis. Walt Disney's cartoon production, in fact, has become the most ambitious single item of Hollywood's contribution to the war effort. This began with his *Four Methods of Flush Riveting* for the Lockheed Aircraft Company. It was a purely technical subject with no humour, and done in black and white—in the form of an animated cartoon. It was suggested to Walt Disney that it should be made in colour, but he decided that this was a waste of money; and the film was so highly regarded by the Lockheed officials that they immediately brought it to the attention of other war industries and Government departments.

John Grierson, head of the Canadian Film Board, commissioned Disney to make four Canadian War Savings shorts and an Army Training film called *Stop That Tank*. This was an instructional film in colour, with humour and sound effects. Much of the humour was unconscious, because it attempted to show that a Bren gun could stop a tank. There are live human beings in this film.

The United States Treasury Department now ordered *The New Spirit*, a Donald Duck income-tax short, which became celebrated when the United States Senate objected to paying for it. This had colour, humour and music, and showed the public how to fill up their income-tax forms. Simultaneously, Walt Disney was placed under contract to produce twenty reels for the United States Navy on identification of warships and aircraft based on the Weft system (which deals with wings, engines, fuselage and tail). These films, which include live action and model photography as well as animation, were only the beginning of the programme for the Navy which now keeps over half the Disney plant in Burbank going day and night. They have no humour and no music, and I think that one might well draw attention to Walt Disney's patriotism in throwing away a great amount of his goodwill with the public by making entirely serious cartoons.

Not to be outdone, the Army commissioned Disney to produce a series of aircraft identification films similar to those ordered by the Navy—and many other secret military projects have been worked out between him and the Government. One of the most famous is a series on aerology for the training of air crews in the understanding of weather conditions. This was a difficult project because it involved animated coloured maps and drawing cloud formations. Equally well known in the United States is the Disney naval series on flight training and nautical rules of the road.

During this period Walt Disney found time to visit South America on a goodwill tour at the request of the United States Government. The result was *Saludos Amigos*, a Disney feature which has been hailed throughout South America as the greatest single contribution to good relationship between the Americas. It is Walt Disney at his very best, with comedy, beautiful colour and haunting rumba music. It runs for forty minutes, and we ought to be seeing it in this country in the next few weeks. Primarily it was designed for propaganda purposes, but this is skilfully masked, and anyway, British ignorance of South American politics is such that it will be regarded purely in terms of entertainment.

Next, at the request of the Co-ordinator of Inter-American Affairs, Disney produced a series of five colour films on public health. These included such subjects as "How to Prevent Malaria." And this is strictly how to prevent malaria. No punches are pulled. It is based on malaria conditions in the Brazilian jungle. The theme is that if you let the swamp grow, malaria will spread. It is real Hogarth with nothing left to the imagination, and done in black and white.

By contrast, *Surprise Packet* is delightful comedy, though with a propaganda background. The surprise packet is La Pinata—the Mexican equivalent of our Christmas stocking. It is a huge ball like a Chinese magic lantern, and, when struck, bursts open to disclose dozens of exciting toys and other presents.

As if this astonishing record of achievement were not enough, particularly when one considers the amount of human creative labour used in the Disney medium, entire new series of Donald Ducks, Plutos, Mickeys and Goofies have been completed, in addition to special subjects such as *Der Führer's Face* and *Education for Death*. The theme song of *Der Führer's Face* has been played repeatedly on the radio in this country. *Education for Death* could not be more grim. It shows how German children are educated from the most tender ages to become soldiers and to be killed in action.

To cap it all, this month will see Major Alexander Seversky's *Victory Through Air Power* well on the road to animation, and anyone who has read the book will appreciate how far indeed Walt Disney has gone to war—to undertake a feature of this nature. This is actually the only commercial feature film now under way in the Disney Studios.

Preparations on two further features—*Peter Pan* and *Alice in Wonderland*—have been halted to cope with war work which now fills the Disney plant. Material is also being prepared on the Gremlins. The original story attempted to show that Gremlins could be made benevolent. The Royal Air Force will be glad to hear that Disney now understands that such a metamorphosis is absolutely impossible.

When questioned recently, Disney stated that he had no immediate interest other than to help win the war, and as far as he and the Disney plant were concerned, everything would be turned over to achieve that purpose in the shortest possible time. That he is as good as his word is proved by this further list of instructional shorts:

FAT SALVAGE—*Out of the Frying Pan Into the Firing Line* (colour, music, humour).

FOOD—*Food Will Win the War* (colour, music, humour).

AGRICULTURAL—*Corn and Corn Products* (colour, music, humour).

INDUSTRIAL—*Aircraft Production Processes* (black and white, no humour, all about welding, rivetting, heat treatment, template reproduction, mock-up and tooling, lofting and lay-outs, blanking and punching, bending and curving, and forming methods)

FLYING INSTRUMENTS—*Minneapolis Honeywell Regulator Company* (black and white, no humour).

HEALTH—*Vaccination* (black and white and strictly about vaccination; unfunny).

Two other health subjects are *Water Supply* (black and white and unfunny) and *Prostitution in War* (black and white; all about venereal disease).

Walt Disney is also collaborating with Frank Capra on a factual history of the present war. This traces the events in Italy, Japan and Germany up to the start of the actual aggression by Hitler. It covers the Japanese attack on Korea and Manchuria, the Italian invasion of Ethiopia and the pre-war extra-territorial ambitions of the Axis nations. Its medium is animation, live action and news-reel; and, in fact, might be described as Walt Disney's version of A.B.C.A. (Army Bureau of Current Affairs).

Last, but by no means least, are the plans being made for basic English. A rough copy is already almost finished. It purports to teach the nations of the world how to speak English with a vocabulary of only 1,000 words, and is an interesting corollary to Bismarck's remark quoted by the Prime Minister recently that "The most significant fact of modern civilisation is that Great Britain and the United States talk the same language." In its own way it may well be responsible for the abandonment of French as the diplomatic language after the war.

P.S.—Everyone will be pleased to hear that Walt Disney has two brand-new and very funny characters. One is Joe Carioca, the Donald Duck of Brazil, and the other the Flying Gaucho, from the Argentine.

From top left to bottom right—

1—DONALD DUCK in the sparkling new Disney musical film, in Technicolor, *Saludos*, which has been hailed "as the greatest single contribution to good relationship between the Americas"

2—"DONALD GETS DRAFTED." A wartime film in which the amusing Donald gains a knowledge of life in the Army

3—A scene from "EDUCATION FOR DEATH." A special subject which is not so funny as the usual Disney film: its subject is how German children are prepared for death at the behest of the Führer

4—DONALD IN "DER FÜHRER'S FACE," the theme song of which has been uproariously welcomed in both America and Britain

5—A scene from "SKY TROOPER." A film dealing with one aspect of the United States at war

6—"FOOD WILL WIN THE WAR." A cartoon film describing the food situation in the U.S. and abroad

The Shaftesbury Homes and "Arethusa" Training Ship

THE Shaftesbury Homes and *Arethusa* Training Ship receives all profits from the capital little book, *Jottings for the Young Sailor*, of interest to all whose calling touches navigation. Please buy a copy, 6s. post free. The profits will go towards helping another poor boy to become a sailor. Address: 164, Shaftesbury Avenue, London, W.C.2.

AFTER HIGH-EXPLOSIVE BOMBS HAVE DROPPED, the Heavy Rescue Squads immediately come into action. Their task is to attack the fallen timbers and masonry, and dig their way towards any people who may be trapped within. An entrance is made, and then a shaft is dug towards the very centre of the fallen mass. The first tunneller is roped to the second in case Number One meets with exceptional difficulties. Great work has been performed by the men of these Squads in blitzes all over the country—*Drawing by E. G. Lambert*

"MAIN STREET" IS HIT IN A COAST RAID, where the blitz is ever present. Londoners are apt to forget that there is an area of England—the South-East Coast—where the blitz is ever present. Though the sirens wail only occasionally in the capital these days, they are still frequently heard on the coast when hit-and-run raiders dash in, drop their bombs and leave death and desolation in their wake. This picture shows the scene after one such raid recently. There used to be a furniture store, bank and hotel on the right of the picture. Now there is just a pile of rubble, with a street lamp-standard leaning over at a crazy angle. Rescue workers are already on the spot ready to start operations

Civil Defence at Work

THE "HEAVY RESCUE" SQUAD

The nature of their specialised tasks amid the fallen beams and masonry of blitzed buildings

HEAVY RESCUE is about the toughest and most skilled of the Civil Defence services. The job of tunnelling into piles of debris, shoring up dangerous walls, lifting trapped victims through narrow tunnels, is not only hazardous, but highly skilled. Many of the men engaged in the task have paid with their lives.

Light Rescue and the Ambulance men are first on the scene after the warden reports bombing. Light Rescue removes those of the casualties which can be reached without tampering with precarious, tottering masonry, taking them to the waiting ambulances, often rendering first aid. It is the equivalent of what used to be the stretcher-bearers of the earlier blitzes, and its job ends with the delivery of the casualty to the ambulance. Then, victims who have been trapped in basements or in crevices formed by dangerous fallen beams have to be got out by the Heavy Rescue squads.

Skill and experience are needed to decide whether the whole building may collapse if some obstruction is removed so that casualties can be reached. In the crumbling, bomb-rocked buildings, upper floors and walls may be left with the perilous support of only a few planks or bricks which, if removed, may bring tons of debris crashing down on rescuers and trapped alike. It is here that the experts of Heavy Rescue must judge whether a wall has to be stayed or a tunnel shored up, and they are risking life and limb almost daily in their efforts to save their fellows.

Many lessons were learned during the great blitzes, and the present-day organisation, training and technique of the Rescue Service is very different from those of the early days. Then the squads were almost entirely recruited from builders' men who knew the tricky ways of tottering brickwork and floors and the safest ways to shore-up, tunnel and remove debris.

But with the increasing demand elsewhere for builders, the squads were diluted with other labour. Builders were cut down to four out of a squad of seven to ten. Later still Wing-Commander Hodsoll, Inspector-General of C.D. Services, said: "Give me ten physically fit men, even with no building experience, and I will train them to be a good rescue party. They need one experienced leader, that is all."

Training and intensive practice were the secret. The rescue men have a regular programme of physical exercises, lectures and demonstrations at their depots. In addition, a rescue school has been established in each of the C.D. Regions and every squad leader passes through a thorough course in theory and practice.

Since the bigger blitzes there have been plenty of raids to provide continuous practical training. During raid-free intervals bombed houses are allotted to local squads, and on these they can practise rescue and demolition work. In other, less-bombed areas, local councils have set aside condemned slum property which the rescue men are allowed to pull down as they like.

MEMBERS OF A RESCUE SQUAD go into action after a raid in the Home Counties. Masks are fixed over their mouth and nose because of the dust, and, possibly, escaping gas

AWAY FROM THESE WARS . . . .

Memories and Thoughts of the Years Between

—A Fortnightly Causerie **By J. G.**

Odd Jobs at Home.—How many of us good, easy men, householders, fathers of families and country squireens, in these last years of increasing austerity, have seen the various duties of the plumber, builder, house carpenter, electrician and handy-man thrust upon us, and found ourselves cast for the role of Heath Robinson. Some of us perhaps achieve greatness in these crafts. A majority of us, I fear, achieve no more than temporary patchwork of a Heath Robinson kind, and at a heavy cost in blood, sweat, temper and material.

In days of piping peace, it was no secret that even a small and modern house is in constant need of repair, and that ownership of any real property has long ceased to be an asset and become a heavy liability. Schedules A and B assured us of that; a "relief for maintenance" did little to modify the gloomy truth.

But in days of piping peace, when the pipes froze and burst, the door jammed, the Hoover lost a nut, the roof leaked, the light fused or the pump failed to suck, one telephoned the appropriate craftsman, who came in God's good time, achieved at last a competent repair and, later still, sent in an account rendered which, if it gave pain and shock, at least supplied another noble contribution to those receipted bills to be set against the naked ferocity of the tax-collector's claim under A and B.

The most obvious characteristic of Heath Robinson's erratic and inventive genius was his penchant for using "the thing that's nearest" for the immediate end in view—a penchant for putting the wrong thing in the right place, for constructing a working model from "frail earthen vessels and things of no worth." In invention or in repair the "Heath Robinson craftsman" and handy-man essentially lacks the chief virtue of the true craftsman—*patience*.

You know your true craftsman. When he plans a cabinet or bookshelf, he takes a year or so to look round for likely oak-trees standing in the woods. Another year or so will pass while the felled timber matures. Months go by while the wood is sawn, planed and treated. Then one day, mortised, squared with exactitude, joined with precisely-fitting grooves and oak pegs, the finished product is produced, warranted for a 100 years of service.

That is not Heath Robinson's method, though it was perhaps that of his cousin Crusoe, who had time in hand. The wartime Heath Robinson in his desert island of the Home Counties is rationed of time, rationed of material, strictly rationed of patience. He stops his gaps with the thing that lies nearest to his hand.

Treasures of the Salvage Dump.—Helpful little books show him how the craftsmen go about repairs when an arm-chair becomes a well instead of a domed cushion, when ceiling plaster cracks, when taps begin to drip, tiles flake off, sinks are blocked up, floor-boards gape, doors jamb, panels come away, sash-cords fray and electric circuits fuse.

Such recipes are like Mrs. Beeton's—in wartime. "Take a dozen fresh eggs and a pint of cream. . . ." The wartime Heath Robinson may send those books to the salvage dump. They are not for him. The broken tile is replaced with a tobacco-tin hammered more or less flat and kept in place with a wedge of the broken brick. The tap is repaired with a washer cut from the nursery piece of india-rubber rudely shaped and, since the water controls are not in accordance with book plans, the fountain of water which follows the removal of the tap is kept in check (most immorally) by turning full on all taps in its immediate vicinity nearer the source.

Holes in the plaster of walls and ceilings are filled up with nursery plasticine of the nearest shade of colour appropriate. Gaping lanes in the floor-boards are stuffed with yesterday's *Times*, and the moving periods of some anonymous leader-writer can be read at leisure by any casual amateur housemaid who may periodically sweep the floor.

The village scrap-metal dump is the ironmonger's shop of the modern Robinson. He starts by insuring his deliveries of goods selected. With two rusty bicycle wheels, an iron rod and a few old planks, he constructs a hand-barrow or float, and brings his treasures home. Another old bicycle wheel will adequately replace the broken grid over his sewage-ventilation trap. The gaps in his irreplaceable rabbit-wire fence are patched with ragged squares of dumped and rusty mesh-wire. Damaged saucepans are restored to use with cement bottoms to hold water or scraps for the fowls. An old inner tube, shaped and tacked down, covers dangerously-worn patches in the stair carpet; more of it does duty among gaping tiles or as stuffing in the gaps between warped metal window-frames. Cemented steps and asphalted paths are patched with clay dug from the Weald. The contents of old batteries and cells are "good against" weeds of certain kinds on garden paths going back fast to nature. Old sun frames for early peas, cut and shaped, replace broken glass panes in the windows of house or greenhouse, and "as proper a man as ever went upon shoe leather" goes now upon my handiwork with an outer Dunlop tyre.

As for galvanised piping of odd lengths, familiar in all salvage dumps, they replace chimney-pots, carry off surplus water, fill holes in masonry and reface broken furnace doors. Rusty pails are never past use. The enthusiastic cinder-sifter can never have enough of them, and they are ideal for containing the kitchen scrap and draining off the surplus water before the balancer meal is mixed for the poultry.

It is often said that the only truly happy man on earth is the craftsman who "labours with his hand the thing that is good," the man whose work is his hobby, his pride and his consciousness of real efficiency. I do not dispute this truth. But as one who will never in this life attain to efficiency in the labour of his hands (that is, in manual labour), I put in a word for the peculiar joys of Robinsonism. The satisfaction which lies in temporarily filling a round hole with a square peg cannot be much less intense than that which comes from a permanent filling with materials of the right shape and texture. And that joy is the more lasting because the material snatched haphazard to fill a gap will never merge into the whole pattern, but will remain identified with the scrap-heap whence it came, to remind the amateur of his inspiration and resource, for so long as it remains in its place.

TACKLING THE PROBLEM OF THE POST-WAR HOUSE: Mr. Gledhill, of Lewisham, a Member of the Incorporated Association of Architects and Surveyors, has made a number of models in order to solve the problems of post-war housing. He has endeavoured to retain the amenities of a private house with the advantages of a luxury flat, together with the undoubted saving of space. He has formulated his own rules, which are: all rooms must have the maximum amount of light and air; the minimum amount of ground space must be used; the main staircase must not be more than two flights, or thirty steps; and each dwelling must have at least 130 clear feet of open space. In the picture above, Mr. Gledhill is seen with his big model of post-war houses: it has taken three months of his spare time to build

DRIVING A NAIL INTO A GLASS BLOCK. The apparent density of this is less than that of water. The blocks can be used for heat-insulation purposes

CLOTH MADE OF GLASS: A continuous filament which is 100 per cent. glass and which can be woven into yarn, cloths and braid. New uses of glass have been illustrated in a recent exhibition at the Building Centre, in Maddox Street. Cloths, tapes and cords made entirely of glass have been shown there, as well as glass drawn into fibres finer than human hair for electrical installation purposes. The valuable role which glass is playing in the war has also been demonstrated: specimens have been shown of bullet-proof windows for tanks and bullet-proof panels for aircraft

The New London Productions

Reviewed by PHILIP PAGE

The Merry Widow.—Whether London's return, theatrically speaking, to the reign of Edward VII is because that age was more peaceful and more civilised, or because its plays were better, I have not the space here to discuss. Possibly both reasons hold good. But it is pleasant to find Lehar's luscious tunes, with their memories of Daly's Theatre, at His Majesty's, with 1906 Bernard Shaw just opposite, and 1908 Barrie a few hundred yards away—all three plays dressed in the period. *The Merry Widow* is not the best of its batch (certainly not musically), but it has always been the most popular. Nor is Miss Madge Elliott the best of a large batch of Widows I have seen—her charm is rather too sophisticated—but she also is likely to be popular. Mr. George Graves alone remains of the original cast, in the part in which I saw him, when I was but a youth, in 1907. He is better than ever—a superb performance. A grand success is scored by Miss Carol Raye, who is but eighteen. Here is a girl who seems to have all the gifts. Mr. Cyril Ritchard is good as the Prince, and Mr. Alexander Field, looking very like Mr. Gandhi, contributes an amusing sketch. Nor should the fine singing of Miss Nancy Evans be missed.

What Every Woman Knows.—And so to Barrie. This play, which has been revived at the Lyric, is not his best, good as it is, but I prefer it to most, because it is the least whimsical. The humour, which is concerned largely with amusing contrasts between the English and Scots characters, is spread a bit thin over the four acts; it lends the necessary piquancy to the long semi-duel between little Maggie Wylie and the doltish careerist she adores—John Shand. Miss Barbara Mullen's Maggie was duly shrewd and capable, but it suggested, as it should not have done, that John's penchant for the other girl was excusable. Mr. Nicholas Hannen, as the English Cabinet Minister, and Dame Irene Vanbrugh, in the poor-ish part of the French aristocrat, were, of course, immaculate. The large collection of Scots characters seemed to me the real thing, though mine is not an expert opinion. Miss Diana Gould, in large floppy hat and sweeping gown, looked like Miss Lily Elsie in *The Merry Widow*.

SAVE ALL YOUR WASTE PAPER FOR SALVAGE

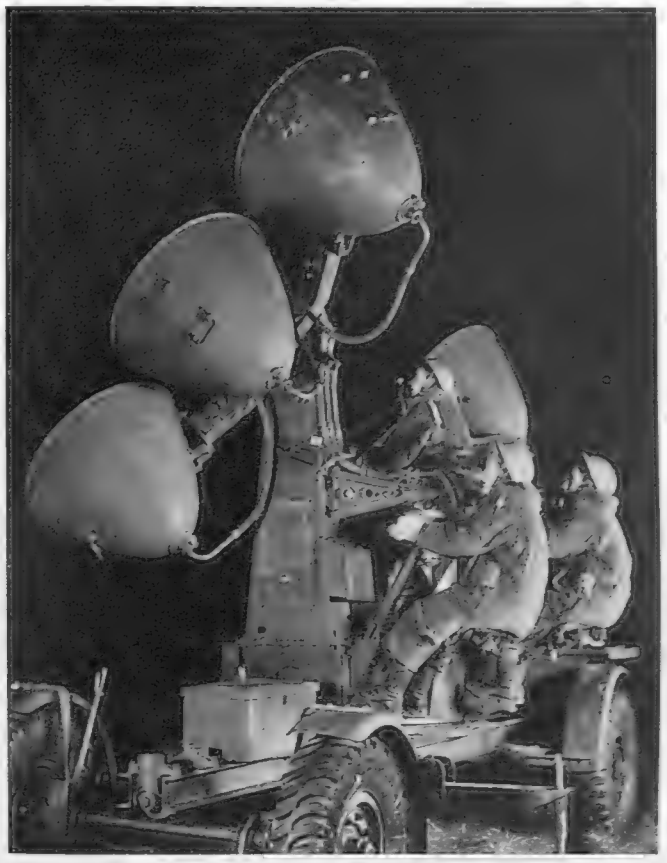
"ROOF OVER BRITAIN"

How the Anti-Aircraft Defences were Organised to Counter the Blows of the German "Luftwaffe"

LONDON'S A.-A. BARRAGE IS CONTROLLED BY A HIGH-RANKING ARMY OFFICER who sits on a platform in the Gun-Control Room, deep below ground in London. Through a microphone, he gives orders to the gun sites. He is seen here (in the centre) reading a message which has just come through. The plotting of the position of the bombing aircraft is being carried out by the A.T.S. girls in the background

THE CONTROLLING OFFICER, WITH HIS STAFF, watches how the plotting of aircraft is being carried out by A.T.S. girls in the Control Room below ground. The officer nearest the camera controls the height of fire, and the type of shells to be used by the batteries, with the aid of the coloured "clocks" set in a special case on the table in front of him

Another glimpse at the Controller and his staff in their underground headquarters. These are the men who directed the guns during the great blitz on Britain



SOUND-LOCATORS MANNED BY A.T.S. GIRLS. Searchlight batteries operated entirely by women have been in action with success several times against the enemy

Here, with a gun detachment, is GENERAL SIR FREDERICK PILE, C.-IN-C., ANTI-AIRCRAFT COMMAND. Starting his Army career as a gunner, Sir Frederick was given command of the 1st A.-A. Division, Territorial Army, in 1937

The R.A.F. won the Battle of Britain during the autumn of 1940. But the Fighter Squadrons who fought and won that immortal battle did not constitute the whole of our defensive system. The "roof over Britain" was composed of her static defences as well: the anti-aircraft batteries, the searchlights, the balloon barrage and the Royal Observer Corps. At the beginning of the war the "roof" was only a fairly tough framework; but, even so, among the nations it was second only to Germany, who—unlike us—had been preparing for war for many years. From that time the defences developed rapidly into a highly-trained, efficient and well-equipped organisation. The Battle of Britain, the attacks on London, the provinces and ports, are all proof of this. The story of the life of Britain's static defences is not dull—but very often it contains every element of exasperation. The men behind the guns have had to fight the canker of all armies—monotony—often in isolated stations far from their own homes, or anybody's home! But they have proved victorious against boredom just as they have against the enemy. The official story of Britain's anti-aircraft defences from 1939 to 1942 has now been published under the title of *Roof Over Britain*. It is illustrated, costs ninepence, and is to be procured from the Stationery Office. The illustrations given here are taken from this record.

The World of Books—By Vernon Fane

THE PSYCHOLOGY OF VISION

Aldous Huxley and the Art of Seeing; An Articulate Farmer; Love in the Blitz; Polish Adventure and Irish Romance; Revolution without Tears

AT the age of sixteen Mr. Aldous Huxley had a violent attack of an eye illness which left him, after eighteen months of near-blindness, with one eye "just capable of light perception, and the other with enough vision to permit of my detecting the 200-ft. letter on the Snellen chart at 10 ft." He was able to read at first with a powerful hand magnifying glass, was later "promoted" to spectacles, but in 1939, in spite of greatly strengthened glasses, found that his capacity to see was quite steadily and rapidly failing. Now, after four years of visual re-education, his sight, although still very far from normal, is about twice as good as it ever was when he wore spectacles.

To explain in practical detail how this has been achieved, and "to repay a debt of gratitude . . . to the pioneer of visual education, the late Dr. W. H. Bates," Mr. Huxley has written a short and intensely interesting book, which he has called THE ART OF SEEING (Chatto and Windus. 7s.).

I have already read it twice, and intend to keep it by me to study further. The sub-titles will give you an idea of its interest, though not of its extraordinary nature: "A story of a miraculous cure—a study of the psychology of vision—a message of hope for everyone with defective sight."

After a discussion of the psychology of seeing, which Mr. Huxley analyses as Sensing plus Selecting plus Perceiving, he passes to the practical side of re-educating the eyes by means of exercises, by sunning them, by correct breathing, by blinking, and by training the mental side of seeing, in which relaxation is a factor of first importance.

Some of the exercises look a bit surprising in actual practice. For instance, Mr. Huxley writes: "Sitting down comfortably in an easy chair, close your eyes and imagine that you have a good, long pencil attached to the end of your nose. (Lovers of Edward Lear will remember his pictures of the 'Dong.') Equipped with this instrument, move your head and neck so as to write with your protracted nose upon an imaginary sheet of paper . . . 8 or 9 in. in front of your face. . . . Begin with your own signature. Because your head and neck move so jerkily it will look like the signature of an alcoholic illiterate. But," he adds soothingly, "practice makes perfect . . . these drills may seem rather silly, childish and undignified. But this is not important. The important thing is that they work."

Mr. Huxley takes a few masterly cracks at fads and foibles. Black glasses, about which he feels particularly strongly, "have ceased to be the badge of the afflicted, and are now compatible with youth, smartness and sex appeal."

GLORY HILL FARM—Second Year (Bodley Head. 7s. 6d.), is a further instalment of the agricultural experiences of Mr. Clifton Reynolds, a business man, and evidently a successful one, who for the past two years has been experimenting in farming.

Experimenting, that is, in the sense that all farm procedure was new to him, and not that he attempted to introduce new methods into a traditional calling. Mr. Reynolds' farm is in Buckinghamshire, and is one of those "mixed" farms of which there must be thousands in the length and breadth of England. Cows and pigs, neither in impressive quantities, ducks and geese, wheat and oats, kale and potatoes, all organised on a basis that seems to owe more to optimism than to science, unless I am misled by Mr. Reynolds' friendly and modest manner.

This book is emphatically not a guide for beginners or a Farming Made Easy; I think the author would contest that as strenuously as any critic. But it does provide a fascinating account of mistakes and triumphs, of the exercise of judgment and patience, and of a number of times when man and nature and cows, and everyone but the local War Agricultural Executive Committee, seemed to be joined in a conspiracy to discourage a very articulate farmer.

Miss Barbara Noble's new novel is a level-headed, unsentimental, excellently-written and more than a little depressing tale of wife-versus-secretary, with the London blitzes as an insistent background.

There is no doubt that THE HOUSE OPPOSITE (Heinemann. 8s. 6d.) is very nearly a first-rate novel, or that Miss Noble's stature as a novelist is growing apace, but the fact remains that there is little relief from drabness and frustration throughout this book. The heroine's love-affair has no ecstatic or even mildly happy moments, her mother drinks too much rum between the alerts and the all clear, her nearest neighbour is a black marketer, the wronged wife is merely peevish, and the cause of all the trouble is going bald.

One or two factual and admirably-detailed accounts of blitz nights in hospital emergency wards do not noticeably lighten the gloom.

But with all this, here is an author who can tell a story with such compulsion that it must be read to the end; who can create characters that are recognisable without being banal, and who, a reader might dare to hope, will feel much better now that she has got this book out of her writing system.

Mr. Val Gielgud has written a fine, swashbuckling romance of Napoleonic times and the Hundred Days in CONFIDENT MORNING (Collins. 8s. 6d.).

His hero, Pionkowski, a young Polish cavalry officer, has many talents, among them horsemanship, swordsmanship and forgery. He is also an accomplished spy, braggart and seducer, with only one constancy, and that his love for Poland. Left to his own devices as a soldier of fortune in the first decade or two of the last century, Pionkowski rides through turbulent Europe till horses die under him, and till his records of espionage and counter-espionage become hopelessly involved.

Mr. Gielgud has an ingenious theory that this was a character that did, in fact, exist at that time, and that he was the subject of Sir Hudson Lowe's querulous demand on St. Helena: "Pionkowski? Who was that man?" Pionkowski, asserts Mr. Gielgud, was "*cet espion Konski*" who, by the loss of half a document, or by some error in transcription, came to be known by another and a fictitious name.

However that may be, and in my view it has not the slightest effect on the novel's merits or demerits, this is what used to be known as a rattling good tale, and whether it is the rattle of a sabre, or a gambler's dice, or the guns at La Haye Sainte, or the teeth of one of the convenient old crones who fill up corners of the plot, is no matter. Here is the sound and the fury, signifying at least one evening's excellent entertainment.

Miss Kate O'Brien is a romantic writer, too, but in a very different sense, and the effects she uses are as quiet as the brush of a bird's wing.

THE LAST OF SUMMER (Heinemann. 8s. 6d.) is another of her novels that has an Irish background, though this time it is a contemporary one; the summer of 1939. To the Kernahans' big, pleasant, shabby house near Mellick comes Angèle Kernahan, on a hot, summer's evening. She is the young and enchanting daughter of Tom Kernahan and the French wife he married after his Irish love had jilted him and married his brother. Now both Tom and his brother are dead, and Hannah Kernahan, only a little faded, only a little more imperious, rules Waterpark House and her two grown sons, and keeps her own legend alive.

Part of the legend is that Tom, when she rejected him, had "never," in the classic phrase, "looked at another woman," yet here was his lovely daughter Angèle, and Hannah's two sons were falling more in love with her every hour. Hannah is the gentlest and the most implacable enemy, and Hannah wins. When war is declared, Angèle leaves for France, though one of the sons goes with her to enlist in the French Army.

No one writing in this *genre* to-day can express the heartbreak of the young with more sensibility and with less mawkishness than Miss O'Brien. Her book is a slight and subtle enchantment, and each page bears her unmistakable imprint.

At last a Russian novel, by a Russian and about Russians, that is positively boisterous.

IN YOUR GLAD HEART, TAMARA (Cassell. 10s. 6d.), though possibly not an ideal title, is at least an indication of what the reader may expect when he embarks on this fast-paced, kaleidoscopic book. The main plot covers the years up to the Russian revolution, and covers it as lavishly as a sable rug.

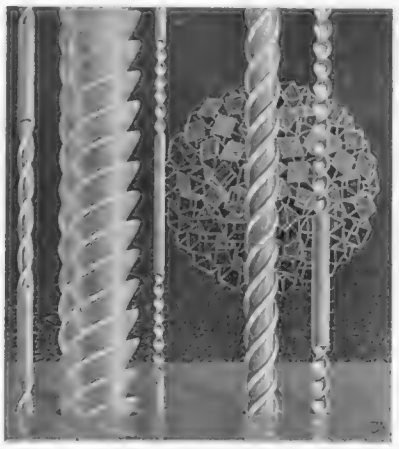
For this is the Russia of palaces and princesses and singing gypsies, of courts without the shadow of Rasputin, and of virtues and vices so simply and clearly limited, like the black and white squares on a chessboard, that the vices themselves lose all their overtones of the ominous and sinister.

The little princess, Tamara, has a gypsy ancestress, but Russian gypsies must be of a different strain from the rather glum ones I recognise in this country, or they could never account for the strain of sheer high spirits and zest for living that makes Tamara such an enjoyable character of fiction. In day-to-day commerce she might perhaps be the least bit overwhelming, but between the bright blue covers of a novel she is indomitable, and never more so than when she escapes across the frontier to a Paris where no White Russian will ever drive a taxi, or mark the way to a night-club entrance.

ADVERTISEMENTS as PROPAGANDA

A "New Idea" sponsored by Imperial Chemical Industries

MR. Sidney Rogerson is, to-day, a power in advertising: he is in charge of all publicity for that vast organisation, Imperial Chemical Industries. But until the year 1937 he had been chiefly concerned with editorial and film propaganda. When war came two years later, it put a stop to the bulk of advertising as it had been developed up till that moment, as supplies were limited and the calls of the Services caused a radical change in the national life.



"Metals are Chemicals": by John Armstrong

In 1941, Mr. Rogerson managed to press home his new ideas of the function of advertising, *vis-à-vis* the reader of our national newspapers in wartime. To begin with, each of his announcements was intended to be an embellishment of the page on which it appeared; "stunt" lay-outs were eschewed; and well-known artists were brought in to co-operate. Secondly, the text was written in the clearest and least-adjectival English. Finally, it was decided not to "play down" to the lesser-minded—therefore, only those journals were chosen which would give an intelligent readership (*The Sphere* was one of these!).

The results of this policy after eighteen months have been extraordinary. At home, the demand for reprints has been (and is) astonishing: the most interesting feature is the demand from school-teachers. Already well over 100 schools, from Winchester College on the one hand to a Borstal institution on the other, have had sets for framing. Every secondary school in Kent has had a set. One public school is setting examination papers for three forms on the information contained in the advertisements.

Overseas, the results have been equally striking. In Argentina, for example, the announcements (one can hardly call them advertisements) were so welcomed as evidence for Britain that they were reprinted and distributed in leaflet form. Now, at the suggestion of the Ministry of Information, Imperial Chemical Industries are extending their displays so that during this year they will be appearing in many of the remaining neutral countries, besides British India and South Africa. The choice of countries is of interest if considered in relation to the need for British propaganda in them!

"Crime": by Mendoza

"Our Daily Bread": by Anna Zinkeisen

There can be little doubt but that Imperial Chemical Industries have set a new idea in advertising and that their new-style announcements are carrying British prestige overseas in no uncertain fashion. The three small reproductions given here indicate the artistic qualities of the announcements: they do not, however, convey what is equally important—the dignity and precision of the accompanying text.

Since 1790...

In the days of the French Revolution, Schweppes Table Waters first became a household word and for 150 years their fame and distinction has become ever more widely known.

Now in the midst of a World Revolution it is the duty and desire of all to make sacrifices to assist towards Victory. Table Waters, as made by Schweppes, will therefore disappear from the market until final triumph is achieved. But then—as subjugated Nations will rise to resume their position in the world, so will these unequalled Table Waters return to their high standard of excellence.

By Appointment

Schweppes

Table Waters

BY APPOINTMENT
TO H.M. KING GEORGE VI

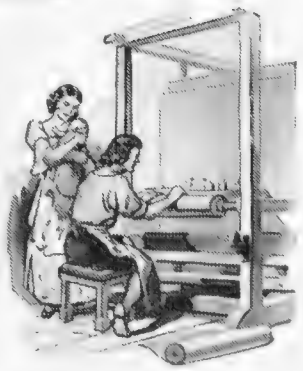
LIQUEUR SCOTCH WHISKY
VAT 69
REGISTERED
Wm. Sanderson & Son, Ltd.
DISTILLERS,
LEITH, SCOTLAND

VAT 69

'Quality Tells'

Sanderson's
LUXURY BLEND SCOTCH WHISKY

WM. SANDERSON & SON LTD., LEITH



ENDURING REPUTATION

Why is the name of Worsted—an obscure village in the county of Norfolk—known all over the world to-day?

Because two or three centuries ago a few honest weavers wove honest woollen cloth there.

As a result, the name of Worsted became the hall-mark of quality, and finally—the generic designation for a whole class of fabrics.

For the same reasons the name of Chatwood has become the recognised hall-mark of work of quality.

Good craftsmanship never fails to win recognition and fame, for it is the one thing of all others most respected.

It is on good craftsmanship that the name of The Chatwood Security has been built and is to-day securely based.

THE CHATWOOD TRADITION:

"ACHIEVEMENT IS BUT ANOTHER MILESTONE ALONG THE HIGHWAY OF PROGRESS—THE END OF THE JOURNEY LIES EVER BEYOND."

THE CHATWOOD SECURITY

THE CHATWOOD SAFE Co. Ltd.,
BANKERS' ENGINEERS,
Head Office: SHREWSBURY, ENGLAND
Telegrams: CHATWOOD, SHREWSBURY — *Telephone:* SHREWSBURY 4001
London : Manchester
Glasgow : Bombay

Hand-spun, hand-woven, every yard

HAND SPUN. HAND WOVEN.
HarrisTweed
REGISTERED TRADE MARK Nº 319214
GRANTED BY THE BOARD OF TRADE TO THE HARRIS TWEED ASSOCIATION LTD
HARRIS TWEED
FACSIMILE OF THE TRADE MARK APPEARS ON THE CLOTH

YES, hand-spun and hand-woven from 100% pure Scottish wool by the Crofters in their own homes on the Islands of the Outer Hebrides.

Harris Tweed is of a texture of unique softness, elasticity and evenness. A more handsome, comfortable, durable or 'characterful' fabric has never been produced.

An interesting choice of Harris Tweed is still available, but in limited quantities.

* * *

Look for the Trade Mark on the cloth itself and for the Label on finished garments.

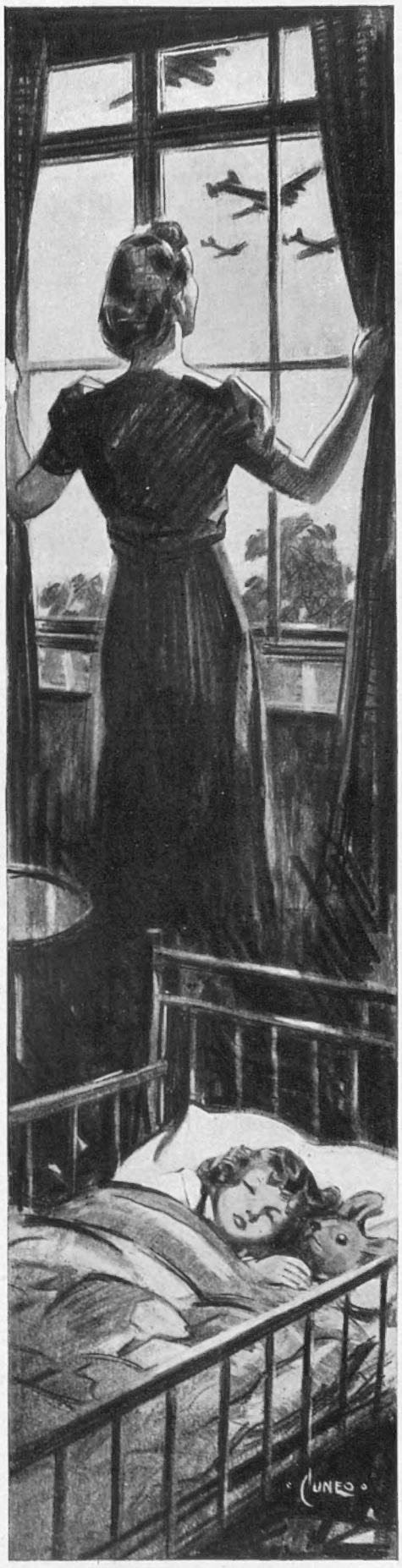
HARRIS TWEED

The Board of Trade accepts the following definition:—
"Harris Tweed" means a Tweed made from pure virgin wool produced in Scotland, spun, dyed and finished in the Outer Hebrides and hand-woven by the Islanders at their own homes in the Islands of Lewis, Harris, Uist, Barra and their several purtenances and all known as the Outer Hebrides.

HANDSPUN
HARRIS TWEED

THE HARRIS TWEED ASSOCIATION LTD., 10 Old Jewry, London, E.C.2.

I wonder where he is?



Twilight.
The sky is filled with
droning . . .
droning . . .
Bombers are going out
—I wonder where he is
"—*my Peter!*"
He too is going out
somewhere—
—now.
Laughing—yes,
laughing of course!
With his boys.
Jock, his gunner,
Dave the Australian,
Poker Face—second
pilot and Shorty—
the imperturbable :
Cup o'cawffee, Sir?
To think,
Last week he was home ;
The stories he told
of them. . . . . .
and the old kite—
' Peter's Delivery Van ! '
Good luck to them—all.
Baby's asleep, Peter.
Some day—
Some day
You'll come home
for good
May that day be soon.

* * *

We hear the droning, as we listen to the radio and we say "*Lot going over tonight—anything interesting after the news?*" That droning means anxiety—and may mean sorrow—to many a wakeful woman. Let us not forget that. Let us not be conceited about either our war-work or our savings. We owe more to our fighting men than we shall ever repay—for we only lend where they give ; and give all ! *Consider your savings in the light of THIS thought.*

Issued by the National Savings Committee

Service attire— entire

We make it possible for Service men to buy their entire wardrobe—uniforms, underwear and all accessories—under one roof. This saves much time and patience. And our many branches help also to save travelling time. We have shops at Aldershot, Amesbury, Barmouth, Bath, Belfast, Birmingham, Bothwell, Bournemouth, Bristol, Coventry, Dunbar, Edinburgh, Glasgow, Harrogate, Hove, Hull, Ilkley, Leeds, Liverpool, Llandudno, Manchester, Norwich, Nottingham, Oxford, Plymouth, Repton, Richmond (Yorks), Sheffield, Southampton.

AUSTIN REED

of Regent Street

Telephone : Regent 6789

This is the Gin

BY APPOINTMENT TO H.M. KING GEORGE VI

22/6 per bottle
½-bottle 11/9

Also
GORDON'S ORANGE AND LEMON GINS
Bottles 22/6
GORDON'S SHAKER COCKTAILS
Bottles 16/6
These prices apply to Gt. Britain and N. Ireland

The Gin with world reputation

Gordon's
Stands Supreme

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ADVICE BY ASHLEY COURTENAY

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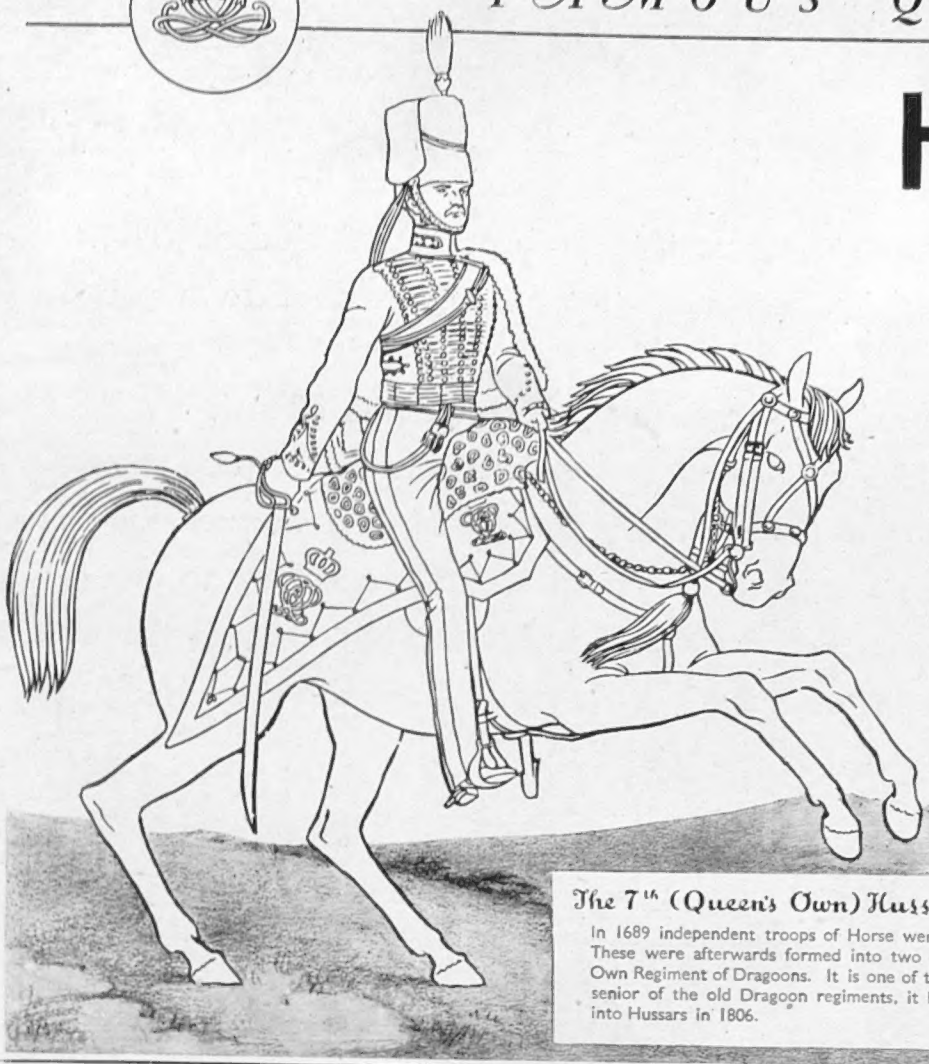

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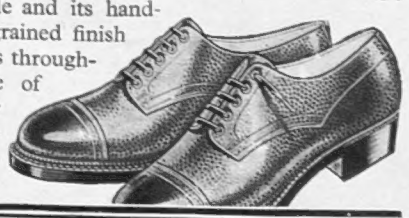

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